## 1999 LOUISIANA HEALTH REPORT CARD

As mandated by R.S. 40:1300.71

M.J. "Mike" Foster Governor

David W. Hood Secretary, Department of Health and Hospitals

Submitted to the Governor and the Louisiana Legislature March 29, 1999

## 1999 Louisiana Health Report Card

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A Publication of State Center for Health Statistics Louisiana Office of Public Health 325 Loyola Avenue, Suite 106 New Orleans, LA 70112 504/568-5337

## STATE OF LOUISIANA DEPARTMENT OF HEALTH & HOSPITALS





March 1999

Dear Governor Foster and Members of the Louisiana Legislature:

On behalf of the Department of Health and Hospitals (DHH), it is my great pleasure to present the fourth annual Louisiana Health Report Card in accordance with R.S. 40:1300.71. This legislation, as mandated in the 1995 Regular Legislative Session, has permitted DHH the opportunity to compile information on the health status of Louisiana. The Report Card provides morbidity- and mortality-related statistics, information on current assessment and prevention initiatives, and recommendations to improve the health status of the state's citizens through enhanced programming and increased access to care.

The DHH mission is to protect and promote health, and to ensure access to treatment, preventive, and rehabilitative services for all citizens of the State of Louisiana. DHH is dedicated to fulfilling its mission by providing quality services in the most efficient and cost-effective manner possible, assisting in the development and furnishing of services by other entities, and looking ahead to constantly raise our standards. The information contained in this report reinforces the importance of the DHH mission and reaffirms our commitment to target resources and manpower in those areas where they are most needed.

We submit this report to you and gladly welcome feedback, in our ongoing effort to improve its usefulness. We also welcome discussion on ways in which we can work together to improve the health status of Louisiana.

Sincerely,

David W. Hood Secretary

Stuid W. Hood



## **Executive Summary**

Monitoring the health status of a population is an essential step in evaluating the effectiveness of various health programs and in developing programmatic policy for the future. Monitoring the health status of a population relative to certain health status indicators over a number of years is an especially effective tool for health planning. Act 985 of the 1995 Louisiana Regular Legislative Session, enacting R.S. 40:1300.71, requires that the Louisiana Department of Health and Hospitals shall annually prepare a health report card relative to health and health-related issues. This annual health report card shall be submitted at least sixty days prior to each regular session.

The following pages comprise the fourth annual Health Report Card. This document reports on the overall state of health in Louisiana, addressing at a minimum the following issues:

- Health findings of major diseases
- · Teenage pregnancy and birth rates
- Rates of low birth weight babies
- Suicide rates
- Sexually transmitted diseases
- Incidence of drug addictions
- Violent deaths
- Morbidity rates
- · Health assessment programs and results
- · Results of preventive health outreach programs
- · Assessment of the state health care delivery system

The report card is divided into six major sections. The first three sections are "Population and Vital Statistics," "Morbidity," and "Health Assessment Programs." These contain data relative to each health status indicator listed above for the state as a whole and for the parishes within the state. There are comparisons with prior years and with other states. In some cases, variations among different segments of the state's population are reported.

The last three sections address current health care initiatives, the state's health care delivery system, and future measures for health status improvement. These sections are: "Preventive Health Outreach and Service Programs," "Louisiana State Health Care System," and "Recommendations for Improving Health Status."

This report is the result of efforts by individuals throughout the Department of Health and Hospitals. To contact the individual programs that contributed to this document, please refer to the listing of Program Office telephone numbers in the "Contact Information" table on page 179.

I



## Contents

	•		
	•	iisiana	
D	epartmer	t of Health and Hospitals Organizational Chart	XI
I.		tion and Vital Statstics	
		Population	
	В.	Births	
		Live Birth Counts and Birth Rates	
		Prenatal Care	
		Low Birth Weight	
		Teen Births	
	C.	Deaths	
		Death Counts and Mortality Rates (Crude and Age-Adjusted)	
		Leading Causes of Death	
		Infant Deaths	
		Overview	
		Infant Mortality	41
		Neonatal Mortality	43
		Injury Deaths	50
			= 4
II.		ity	
	A.	Infectious Diseases	
		Background	
	_	1997 Status	
	В.	Tuberculosis (TB)	
		Background	
	_	1998 Status	
	C.	Sexually Transmitted Diseases	
		Overview	
		Syphilis	
		Gonorrhea	
		Chlamydia	
	D.	HIV/AIDS	
		1997 Status	
	E.	Cancer	
		1991-1995 Status	66
		Background	
	F.	Chronic Disease - Behavioral Risk Factor Surveillance System (BRFSS)	83
		BRFSS: Tobacco Use	83
		Cigarette Smoking	83
		Current Smoking Rates	8 3
		Cigarette Smoking and Youth	84
		Smokeless Tobacco	85
		BRFSS: Alcohol Use	85
		Drinking and Driving	86
		BRFSS: Nutrition and Exercise	
		Overweight	
		Fruit & Vegetable Consumption	
		Physical Activity	
		· · · · · · · · · · · · · · · · · · ·	

## 1999 Louisiana Health Report Card



		BRFSS: Health Status	87
		High Blood Pressure (Hypertension)	87
		High Cholesterol	88
		Diabetes	
		BRFSS: Preventive Health Care	91
		Routine Medical Examinations	
		Mammography	
		Pap Smear	
		BRFSS: Medical Care Coverage	
	G.	Traumatic Brain Injury	
		• •	
III.		Assessment Programs	
		Immunization Coverage	
	В.	Infectious Disease Surveillance	
		Disease Surveillance	
		Notifiable Diseases	
		Surveillance for Measles and Rubella (German Measles)	
		Selected 1997 Results of Infectious Disease Surveillance	
		1997 and 1998 Disease Statistics	
		Reports	
	C.	Sexually Transmitted Disease (STD) and HIV/AIDS Surveillance	
		1996 National Rankings	
		1997 and 1998 Disease Statistics	
		Reports	
	D.	Tuberculosis (TB) Surveillance	105
		1997-1998 Disease Statistics	105
	E.	Alcohol & Drug Abuse Program: Intravenous Drug Use Treatment	
		and STD, TB, and HIV/AIDS Screening	105
		IV Drug Use Treatment	
		STD, TB, and HIV/AIDS Screening	105
		1997-1998 Program Statistics	106
	F.	Statewide Child Death Review Panel	107
		Reports	107
	G.	Brain and Spinal Cord Injury Registry	
		Reports	107
	Н.	Injury Specific Deaths Database	107
		Reports	107
	I.	Burn Injuries	108
	J.	Drowning Surveillance	108
	K.	Louisiana Adolescent Health Initiative	108
		Results	109
	L.	Oral Health Assessment	109
		Comprehensive Oral Health Needs Assessment	109
	M.	Environmental Epidemiology and Toxicology	
		Public Health Assessments and Consultations	
		Madisonville Creosote Works	111
		Pesticide Exposures	113
		1997-98 Pesticide Cases (non-Methyl Parathion)	
		Methyl Parathion	
		Disease Cluster Response	
		Coteau Childhood Leukemia	
		Cancer Mortality Trend Analysis	
		Cancer Mortality	
		Demographics	
		Industrial Mapping	
		Mercury Blood Screening	
			110



	N.	Vital Statistics	
		1997 Statistics	117
		Reports	117
	Ο.	Public Health 9 and Family Planning (PH-9/FP) Project	117
		State Health Care Data Clearinghouse	
IV.	Preve	entive Health Outreach and Service Programs	121
		ms Targeting Infants, Children, and Adolescents	
		Childhood Immunization Initiative – Shots for Tots	
		Sudden Infant Death Syndrome (SIDS)	
		Hearing, Speech, and Vision Program: Sound Start Program for the Early Identification of	0
	•	Hearing Impairment in Infants	. 123
	D.	Children's Special Health Services	
		SAFE KIDS Coalition	
		Child Care Health Consultant Program	
		Prevent Abuse and Neglect through Dental Awareness (P.A.N.D.A.)	
		Child Health Program	
	I.		
	J.	Louisiana Pregnancy Risk Assessment Monitoring System (LaPRAMS)	
		Women's Preventive Health Program	
		rams Targeting Families	
		Healthy Families—Home Visitation Program	
	M.	Public Campaign for Parenting Education & Child Abuse Prevention	128
	N.	Louisiana's Service System for Persons with Developmental Disabilities—Developmental	
		Centers and the Community Services Regional Offices	129
	Prog	rams Targeting Infectious Diseases	130
		Tuberculosis (TB) Prevention and Outreach	
		Sexually Transmitted Disease (STD) and HIV/AIDS Prevention Programs	
		STD, TB, and HIV/AIDS Screening through the Alcohol & Drug Abuse Program	
		rams Targeting Substance Abuse, Violence, and Mental Health	
		Alcohol, Drug, Tobacco, and other Prevention Addiction Services	
		Violence Prevention	
		Suicide Assessment	
	U.	Programs of the Office of Mental Health	
		The Children's Assertive Community Treatment – Region III	
		School-Based Mental Health Services	
		Evolutions	
		St. Charles Assertive Treatment (SCAT) Clinic with No Walls	
		Project LifeAcute Psychiatric Unit – Washington St. Tammany Parish, Continuity of Care	
		Medical Center of Louisiana New Orleans (MCLNO) Mental Health Services	
		Assertive Outreach – Rapid Response Team	
	Droo	rams Targeting Environmental Health	
		Community Water Fluoridation	
		Environmental Health Advisories	
	v v	Mercury in Fish	
	Y	Environmental Health Education	
	Λ.	Methyl Parathion and Other Pesticides	
		Mercury in Fish	
		Health Professional Education	
		Public Health Response for Chemical Spills	
		· · · · · · · · · · · · · · · · · · ·	

## 1999 Louisiana Health Report Card



V. Louisia	ana State Health Care System	139
A.	Analysis of Health Care in Louisiana	140
B.	Louisiana Health Care Statistics	142
C.	Louisiana Health Care Access	143
D.	Medicaid	144
E.	Medicare	149
F.	Provider Sites	150
	State Charity Hospitals	151
	Small Rural and Community Hospitals	151
	Public Health Clinics	
	Rural Health Clinics	154
	Community Care	155
	Federally Qualified Health Centers (FQHC)	155
	School-Based Health Centers	
	Developmental Centers	159
	Mental Health Clinics	160
	Substance Abuse Prevention Clinics	161
	Existing Health Maintenance Organizations	
G.	Inventory of Providers	
	Health Professional Shortage Areas (HPSA)	
VI. Recon	nmendations for Improving Health Status	171
	Infant & Child Health	
	Infant Mortality	172
	Child Health	172
	Child Abuse and Neglect	
	Health & Safety in Day Care Centers	172
	Low Birth Weight Rates	173
	Teenage Birth Rates	173
B.	Infectious Diseases	174
	Emerging Infections	174
	Hepatitis A	
	Hepatitis B	174
	Influenza	174
	Tuberculosis	174
	Sexually Transmitted Diseases and HIV/AIDS	
C.	Oral Health	
	Chronic Disease	
	Cancer	175
	Diabetes	
E.	Alcohol, Drug, and Other Addictions	
	Unintentional Injuries	
	Violent Deaths	
<b>O</b> .	Violence	
	Child Death	
Н	Mental Health	
Contact Ir	nformation	179
la day.		190



## **Tables**

Louisiana Population Count, 1997	2
Percent of Total Population by Gender and Age Group,	
Louisiana and United States, 1997	2
Percent of Total Population by Race and Gender,	
Louisiana and United States, 1997	
Percent of Race and Gender Within Age Group, Louisiana, 1997	
1997 Population Figures for Louisiana Parishes	
Crude Birth Rates, Louisiana, Neighboring States, and United States, 1997	8
Live Births by Race and Age of Mother, Parish of Occurrence and	
Parish of Residence, Louisiana, 1997	10
Percent of Mothers Receiving Prenatal Care in the First Trimester of Pregnancy,	4-7
Louisiana, Neighboring States, and United States, 1997	17
Percent of Women Receiving Adequate Prenatal Care by Parish,	40
Louisiana, 1992-1997	18
Percent of Live Births Less Than 2500 Grams, Louisiana, Neighboring States,	00
and United States, 1997	20
Percent of Live Births to Teens, Louisiana, Neighboring States,	0.4
and United States, 1997	
Percent of Total Births to Teenagers 15-19 Years of Age, Louisiana, 1997	
Births by Parish, Race of Mother, and Selected Characteristics, Louisiana, 1997	
Mortality Rates, Louisiana, Neighboring States, and United States, 1997	
Number of Deaths by Age Group and Berigh, Louisiana, 1997	
Number of Deaths by Age Group and Parish, Louisiana, 1997	ა၁
Age-Adjusted Mortality Rates for the Top Ten Causes of Death,	20
Louisiana and United States, 1997	30
Louisiana 1993-1997	40
Infant Mortality Rates by Race of Child, Louisiana, 1997	
Infant Mortality Rates by Race of Child, Edulsiana, 1997  Infant Mortality Rates, Louisiana, Neighboring States, and United States, 1997	
Infant Mortality Rates, Louisland, Neighboring States, and Office States, 1997 Infant Mortality by Parish and Race of Mother, Louisiana, 1993-1997	
Number and Rate of Injury Deaths by Cause and Intent of Injury, Louisiana, 1997	
Selected Infectious Diseases, Louisiana, 1993-1997	
Selected Infectious Diseases by Parish, Louisiana, 1997	
Tuberculosis Case Counts, 1994-1998	
Tuberculosis Cases and Rates, Louisiana and Neighboring States, 1998	
Louisiana Tuberculosis Cases and Rates by Region and Parish, 1998	
STD Rates and National Rankings, Louisiana, 1994-1998	
Early Syphilis (Primary, Secondary, and Early Latent) Rates by Sex and Race,	
Louisiana, 1994-1998	61
Primary and Secondary Syphilis Rates, Louisiana, Neighboring States,	
and United States, 1993-1997	61
Gonorrhea Rates, by Sex and Race, Louisiana, 1994-1998	
Gonorrhea Rates, Louisiana, Neighboring States, and United States, 1993-1997	
Chlamydia Rates by Sex and Race, Louisiana, 1994-1998	
Chlamydia Rates, Louisiana, Neighboring States, and United States, 1993-1997	
Sexually Transmitted Disease Rates by Parish, Louisiana, 1998	
Persons Living with HIV/AIDS, by Risk Factor, Louisiana, 1993-1997	
AIDS Cases and Rates, Louisiana, Neighboring States, and United States, 1995-1997	
Five Most Common Cancers, Louisiana, 1991-1995	
Five Most Common Cancers in Males, Louisiana, 1991-1995	
Five Most Common Cancers in Females, Louisiana, 1991-1995	
Top Five Cancers and Number of Cases by Region and Parish, Louisiana, 1991-1995	

## 1999 Louisiana Health Report Card



Immunizations: Percent Up-to-Date at Age 24 Months, Louisiana, 1997-1998	100
Immunization Levels Among Two-Year-Old Children Receiving Care	
at Public Health Units, Louisiana, 1992-1998	122
Community Services Regional Offices, Louisiana, 1998	
Percent of Population Represented by Medicaid Recipients in 1996	
Percent of Population Lacking Access to Primary Care in 1996	
Percent of Population Not Covered by Health Insurance in 1996	
Number (Percent of Population) of Emergency Outpatient Visits to Hospitals in 1996	
Percent of Population Enrolled in Medicare in 1997	
Number of Hospitals and Beds, Louisiana, 1997	
Health Facilities, Louisiana, 1997	
Nursing Home Statistics, Louisiana, 1997	
Lack of Access to Primary Care, Louisiana, Neighboring States, and United States, 1996	
Number and Percent of Medicaid Recipients by Basis of Eligibility,	
Louisiana, Neighboring States, and United States, Fiscal Year 1997	144
Number and Percent of Medicaid Recipients of Medical Care by Gender,	
Louisiana, Neighboring States, and United States, Fiscal Year 1997	145
Number and Percent of Medicaid Recipients of Medical Care by Race,	
Louisiana, Neighboring States, and United States, Fiscal Year 1997	146
Number of Medicaid Recipients of Medical Care by Age Group,	
Louisiana, Neighboring States, and United States, Fiscal Year 1997	146
Percent of Medicaid Recipients of Medical Care by Age Group,	
Louisiana, Neighboring States, and United States, Fiscal Year 1997	146
Medicaid Vendor Payments by Basis of Eligibility of Recipient,	
Louisiana and Neighboring States, Fiscal Year 1997	147
Number of Medicaid Managed Care Enrollees, Louisiana, Neighboring States,	
and United States, 1995-1997	148
Percent of State Population Enrolled in Medicare, Louisiana, Neighboring States,	
and United States, 1997	149
Number of Primary Care Physicians by Parish, Louisiana, 1998	
Selected Mental Health Professionals by Parish, Louisiana, 1998	



## Graphs

Percent of Total Population by Gender and Age Group, Louisiana and United States, 1997	2
Percent of Total Population by Race and Gender, Louisiana and United States, 1997	
Distribution of Gender Within Age Group, Louisiana, 1997	2
Distribution of Race and Gender Within Age Group, Louisiana, 1997	4
Crude Birth Rates, Louisiana and United States, 1940-1997	7
Birth Counts and Crude Birth Rates, Louisiana, 1940-1997	7
Births by Race, Louisiana, 1997	8
Age-Specific Birth Rates, Louisiana, 1997	8
Percent of Mothers Entering Prenatal Care in First Trimester,	
Louisiana and United States, 1993-1997	16
Entry into Prenatal Care by Maternal Age Group, Louisiana, 1997	17
Entry into Prenatal Care by Race, Louisiana, 1997	
Percent of Live Births Less Than 2500 Grams, Louisiana and United States, 1993-1997	
Percent of Live Births Less Than 2500 Grams by Maternal Age and Race, Louisiana, 1997	
Percent of Live Births to Teen Mothers, Louisiana and United States, 1980-1997	
Teen Birth Rates by Race, Louisiana, 1997	
Crude Death Rates, Louisiana and United States, 1970-1997	
Age Distribution, Louisiana, 1970-1990	
Percent of Deaths from the Five Leading Causes of Death, Louisiana, 1997	
Age-Adjusted Death Rates for the Five Leading Causes of Death,	
By Gender and Race, Louisiana, 1997	39
Five Year Trend in Age-Adjusted Death Rates for Louisiana's	
Five Leading Causes of Death, 1993-1997	3 9
Infant Mortality Rates, Louisiana and United States, 1970-1997	
Infant Mortality by Race, Louisiana and United States, 1997	42
Neonatal Mortality Rates, Louisiana and United States, 1970-1997	
Neonatal Mortality Rates by Race, Louisiana and United States, 1997	
Tuberculosis Cases by Age Groups, Louisiana, 1995-1998	
Current Smoking by Gender and Race, 1997 Louisiana BRFSS	84
Current Smoking by Age, 1997 Louisiana BRFSS	84
Chronic Drinking (2 or more drinks per day) by Race and Gender, 1997 Louisiana BRFSS	85
Prevalence of Overweight Based on Body Mass Index by Gender and Race, 1997 Louisiana BRFSS	S 86
Adults Who Have Been Told by a Health Professional That They Have High Blood Pressure,	
by Gender and Race, 1997 Louisiana BRFSS	88
Proportion of Adults Who Have Been Told by a Health Professional That They Have	
High Blood Cholesterol, by Gender and Race, 1997 Louisiana BRFSS	88
Proportion of Adults 20 Years and Older Who Have Diabetes, Louisiana, 1997	
Percentage of Adults Aged 18 and Over Who Have Been Told by a Health Professional That	
They Have Diabetes, By Age, Gender, Race and Household Income, Louisiana, 1997	90
Adults Who Had a Routine Physical Examination Within the Past 2 Years,	
By Gender and Race, 1997 Louisiana BRFSS	
Women Who Had a Mammogram Within the Past Two Years, by Race, 1997 Louisiana BRFSS	
Women Who Had a Pap Smear Within the Past Two Years, by Race, 1997 Louisiana BRFSS	
Adults Reporting No Health Care Coverage, by Year, 1992-1997 Louisiana BRFSS	
External Cause of Traumatic Brain Injury, Louisiana, 1996	
Incidence Rates of Traumatic Brain Injury, Louisiana, 1996	95
Immunization Coverage at 24 Months by Region, Percent Up to Date at 24 Months,	
Louisiana, 1992-1998	
OADA HIV Statistics, 1992-1998	106
Percent of Population Represented by Medicaid Recipients, Louisiana, Neighboring States,	
and United States, Fiscal Year 1997	144
Percent of Population Represented by Medicaid Recipients, Louisiana, Neighboring States,	
and United States, Fiscal Years 1990-1997	145
Medicaid Payments per Resident, Louisiana, Neighboring States, and United States,	
Fiscal Years 1990-1997	147

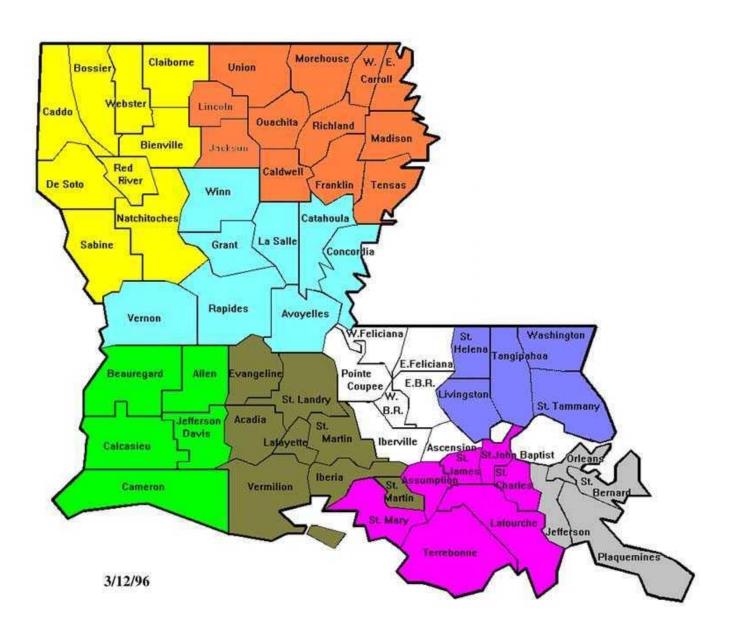
## 1999 Louisiana Health Report Card



## Maps

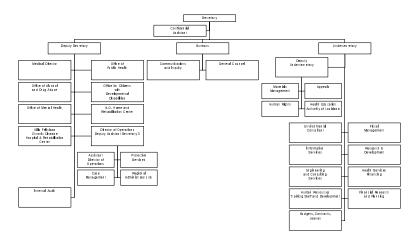
Birth Rate per 1,000 population, Louisiana, 1997	9
Percent Low Birth Weight (<5lb. 8oz.), Louisiana, 1997	
Teen Birth Rate Per 1,000 Women Age 15-19, Louisiana, 1997	25
Immunization Coverage, 1998	99
Parishes with Superfund and Selected Hazardous Waste Sites in Louisiana	112
Lower Mississippi River Study Area	
Parishes with Mercury-Related Fishing Advisories in Louisiana	136
Louisiana Access to Health Care	150
State Charity Hospitals	152
Public Health Units	153
Rural Health Clinics	154
Community Care Parishes	156
School-Based Health Center Sites, 1997-1998	158
State Developmental Centers	159
Mental Health Clinics and Mental Health & Rehabilitation Hospitals	160
Substance Abuse Prevention Clinics	162
Health Professional Shortage Areas	
Health Professional Shortage Areas - Mental	168
Health Professional Shortage Areas - Dental	169
Designated Medically Underserved Areas	170







### Department of Health and Hospitals February 1999







## I. POPULATION AND VITAL STATSTICS



### A. POPULATION

The United States Census Bureau calculates population estimates for the years that fall between their ten-year census counts. According to these estimates, the population of Louisiana as of July 1, 1998 was 4,351,769. The most recent Census Bureau estimates for Louisiana's basic demographic subgroups (i.e. race, gender, and age groups) are for the state's 1997 population. The subgroup estimates are given in the following table.

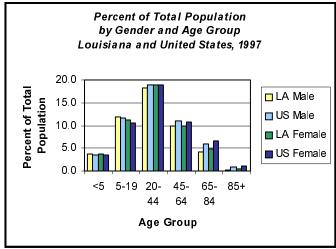
Louisiana Population Count, 1997										
			Age Group							
Gender	Race	<5	5-19	20-44	45-64	65-84	85+	Total		
Male	White	92,464	306,684	537,156	319,306	142,348	10,609	1,408,567		
	Black	64,007	203,200	238,327	102,368	40,536	4,088	652,526		
	Other	3,381	10,071	14,856	6,223	1,508	157	36,196		
Female	White	88,256	292,687	534,231	333,805	196,046	28,741	1,473,766		
	Black	62,365	201,038	275,600	134,219	61,356	9,349	743,927		
	Other	3,227	9,544	14,927	7,038	1,825	226	36,787		
Both	Total	313,700	1,023,224	1,615,097	902,959	443,619	53,170	4,351,769		

Source: United States Census Bureau, 1997 Population Estimates

When these figures are compared with the Census Bureau estimates of the national population in 1997, Louisiana and the United States have very similar population distributions by gender and age group.

	Percent of Total Population by Gender and Age Group Louisiana and United States, 1997								
			Age Group						
Location	Gender	<5	5-19	20-44	45-64	65-84	85+	All Ages	
LA	Male	3.7	11.9	18.2	9.8	4.2	0.3	48.1	
	Female	3.5	11.6	19.0	10.9	6.0	0.9	51.8	
	Both	7.2	23.5	37.2	20.7	10.2	1.2	100.0	
US	Male	3.7	11.1	18.9	10.0	4.8	0.4	49.0	
	Female	3.5	10.5	18.8	10.7	6.5	1.0	51.0	
	Both	7.2	21.6	37.7	20.7	11.3	1.4	100.0	

Source: United States Census Bureau, 1997 Population Estimates



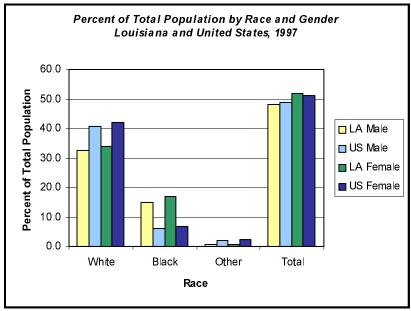
Source: United States Census Bureau, 1997 Population Estimates



Estimates of the population distribution by race, however, show the percentage of African-Americans in Louisiana is more than twice the national average, with 32.1% in Louisiana versus 12.7% nationally. Individual parishes in Louisiana range from 5% to 67% African-American.

Percent of Total Population by Race and Gender Louisiana and United States, 1997								
	Race							
Location	Gender	White	Black	Other	Total			
LA	Male	32.4	15.0	0.8	48.2			
	Female	33.9	17.1	0.8	51.8			
	Both	66.3	32.1	1.6	100.0			
US	Male	40.7	6.0	2.2	48.9			
	Female	42.0	6.7	2.4	51.1			
	Both	82.7	12.7	4.6	100			

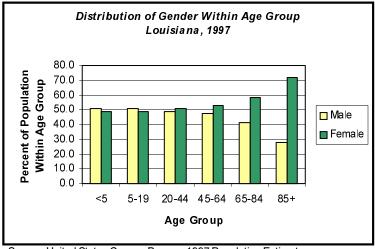
Source: United States Census Bureau, 1997 Population Estimates



Source: United States Census Bureau, 1997 Population Estimates

As in the rest of the nation, advancing age brings an increase in the proportion of women to men. Louisiana's 1997 population estimates for the 45 to 64 years age group are 47% male and 53% female. The percentages change to 28% male and 72% female in the 85+ age group.



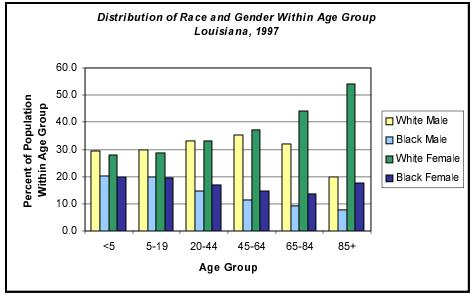


Source: United States Census Bureau, 1997 Population Estimates

Within individual age groups, the race/gender proportions change with advancing age. Prior to age 20, both white males and white females comprise approximately 29% of the population of each age group, and African-American men and women approximately 19%. By age 85+, 54% of the population are white women, 20% are white men, 18% are African-American women, and 8% are African-American men.

	Percent of Race and Gender Within Age Group Louisiana, 1997													
			Age Group											
Gender	Race/Gender	<5	5-19	20-44	45-64	65-84	85+							
Male	White Male	29.5	30.0	33.3	35.4	32.1	20.0							
	Black Male	20.4	19.9	14.8	11.3	9.1	7.7							
	Other Male	1.1	1.0	0.9	0.7	0.3	0.3							
	Total	51.0	50.9	49.0	47.4	41.5	28.0							
Female	White Female	28.1	28.6	33.1	37.0	44.2	54.1							
	Black Female	19.9	19.6	17.1	14.9	13.8	17.6							
	Other Female	1.0	0.9	0.9	0.8	0.4	0.4							
	Total	49.0	49.1	51.1	52.7	58.4	72.1							

Source: United States Census Bureau, 1997 Population Estimates



Source: United States Census Bureau, 1997 Population Estimates



Although 1997 estimates are the most current available for demographic subgroups in Louisiana, the United States Census Bureau has calculated parish-level population estimates for 1997. The changes in Louisiana's parish populations that occurred between the 1990 census and the 1997 estimates are given in the table below.

1997 Population Figures for Louisiana Parishes												
	4/1/90	7/1/97	% Change	7/1/97								
Parish	Census	Estimate	1990-97	% of State								
Louisiana	4,221,826	4,351,769	3.1	100.0								
Acadia	55,882	57,691	3.2	1.3								
Allen	21,226	23,908	12.6	0.5								
Ascension	58,214	69,978	20.2	1.6								
Assumption	22,753	22,863	0.5	0.5								
Avoyelles	39,159	40,791	4.2	0.9								
Beauregard	30,083	31,799	5.7	0.7								
Bienville	16,201	15,827	-2.3	0.4								
Bossier	86,088	92,750	7.7	2.1								
Caddo	248,253	243,391	-2.0	5.6								
Calcasieu	168,134	178,874	6.4	4.1								
Caldwell	9,806	10,351	5.6	0.2								
Cameron	9,260	9,012	-2.7	0.2								
Catahoula	11,065	11,063	0.0	0.3								
Claiborne	17,405	16,888	-3.0	0.4								
Concordia	20,828	20,741	-0.4	0.5								
DeSoto	25,699	25,091	-2.4	0.6								
E. Baton Rouge	380,105	394,249	3.7	9.1								
E. Carroll	9,709	8,991	-7.4	0.2								
E. Feliciana	19,211	20,825	8.4	0.5								
Evangeline	33,274	34,108	2.5	0.8								
Franklin	22,387	22,068	-1.4	0.5								
Grant	17,526	18,625	6.3	0.4								
Iberia	68,297	72,092	5.6	1.7								
Iberville	31,049	31,129	0.3	0.7								
Jackson	15,924	15,550	-2.3	0.4								
Jefferson	448,306	451,240	0.7	10.4								
Jefferson Davis	30,722	31,675	3.1	0.7								
Lafayette	164,762	184,102	11.7	4.2								
Lafourche	85,860	88,037	2.5	2.0								
LaSalle	13,662	13,751	0.7	0.3								
Lincoln	41,745	41,952	0.5	1.0								
Livingston	70,523	85,470										
Madison	12,463	12,987	4.2	0.3								
Morehouse	31,938	31,734	-0.6	0.7								
Natchitoches	37,199	37,285	0.2	0.9								
Orleans	496,938	469,089	-5.6	10.8								
Ouachita	142,191	147,055	3.4	3.4								
Plaquemines	25,575	25,856	1.1	0.6								
Pointe Coupee	22,540	23,636	4.9	0.5								
Rapides	131,556	126,491	-3.9	2.9								
Red River	9,518	9,696	1.9	0.2								
Richland	20,629	20,861	1.1	0.5								
Sabine	22,646	23,762	4.9	0.5								



1997 Popu	1997 Population Figures for Louisiana Parishes												
	4/1/90	7/1/97	% Change	7/1/97									
Parish	Census	Estimate	1990-97	% of State									
St. Bernard	66,631	66,267	-0.5	1.5									
St. Charles	42,437	47,704	12.4	1.1									
St. Helena	9,874	9,782	-0.9	0.2									
St. James	20,879	20,991	0.5	0.5									
St. John	39,996	42,021	5.1	1.0									
St. Landry	80,312	83,465	3.9	1.9									
St. Martin	44,097	46,769	6.1	1.1									
St. Mary	58,086	56,950	-2.0	1.3									
St. Tammany	144,500	184,590	27.7	4.2									
Tangipahoa	85,709	95,254	11.1	2.2									
Tensas	7,103	6,747	-5.0	0.2									
Terrebonne	96,982	103,190	6.4	2.4									
Union	20,796	21,788	4.8	0.5									
Vermilion	50,055	51,693	3.3	1.2									
Vernon	61,961	51,832	-16.3	1.2									
W. Baton Rouge	19,419	20,468	5.4	0.5									
W. Carroll	12,093	12,196	0.9	0.3									
W. Feliciana	12,915	13,275	2.8	0.3									
Washington	43,185	43,087	-0.2	1.0									
Webster	41,989	42,597	1.4	1.0									
Winn	16,496	17,769	7.7	0.4									

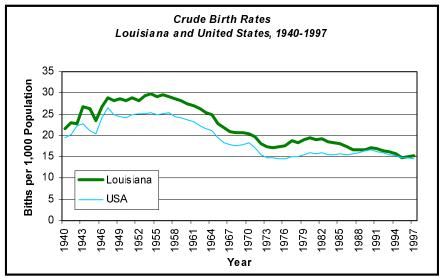
Source: United States Census Bureau, 1997 Population Estimates



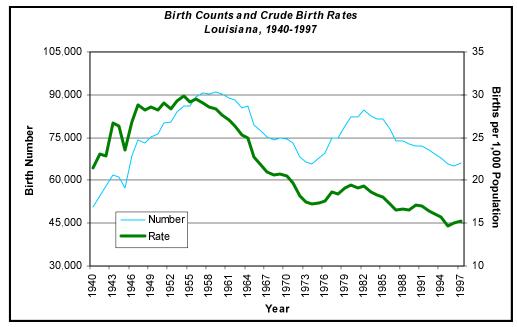
### B. BIRTHS

#### **Live Birth Counts and Birth Rates**

In 1997, there were 65,947 births to Louisiana residents. This marked a slight increase from the number of Louisiana births in 1996 (up 1.2%), while at the national level there was a slight decrease (down 0.5%) in the number of births between 1996 and 1997. Louisiana's 1997 crude birth rate is 15.2 live births per 1,000 population. Because the crude birth rate relates the number of live births to the total population in an area, without regard to the age or sex distribution of the population, it is useful as a measure of the contribution of births to the growth of the population of the area. Louisiana's 1997 crude birth rate was slightly higher than in 1996 (15.0 per 1,000 population), and also slightly higher than the 1997 national rate (14.6 per 1,000 population).



Source: Louisiana State Center for Health Statistics
National Center for Health Statistics (preliminary 1997 data)



Source: Louisiana State Center for Health Statistics

<sup>&</sup>lt;sup>1</sup> Clarke SC and Ventura SJ. *Birth and Fertility Rates for States: United States, 1990.* National Center for Health Statistics. Vital Health Stat 21(52). 1994.



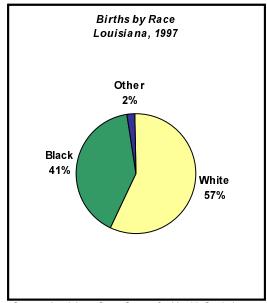
In the table below, crude birth rates are furnished to provide an idea of Louisiana's standing among the neighboring states. (Note: Although Louisiana's final 1997 rate is available and is reported in this document, National Center for Health Statistics preliminary 1997 data for all states have been used in the table below to permit comparison with surrounding states.) Louisiana continues to rank in the top third of the country in terms of birth rate. Louisiana's 1997 ranking of 11th is higher than its 1996 ranking of 14th. Among neighboring states, Louisiana's birth rate ranks in the middle.

Crude Birth Rates Louisiana, Neighboring States, and United States, 1997											
State Birth Rate National Ranking											
Alabama	14.1	22									
Arkansas	14.6	14									
Louisiana	15.2	11									
Mississippi	15.7	8									
Texas	17.2	2									
United States	14.6	-									

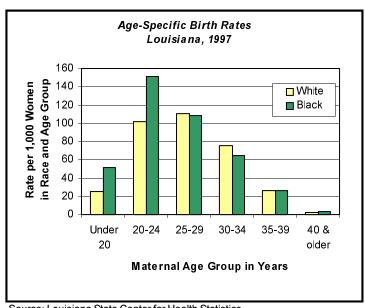
\*Rates per 1,000 population

Source: National Center for Health Statistics

Although African-Americans represent only 32% of the population of Louisiana, 41% of the state's live births in 1997 were to African-American mothers. The birth rate for whites is 13.0 per 1,000 population while that of African-Americans is 19.4. Much of the disparity seems to occur in women under the age of 25. Although birth rates for both racial groups peak in the twenties, the birth rate for African-Americans is much higher for mothers less than 25 years old than for whites of comparable age. After the age of 25, birth rates become more similar.



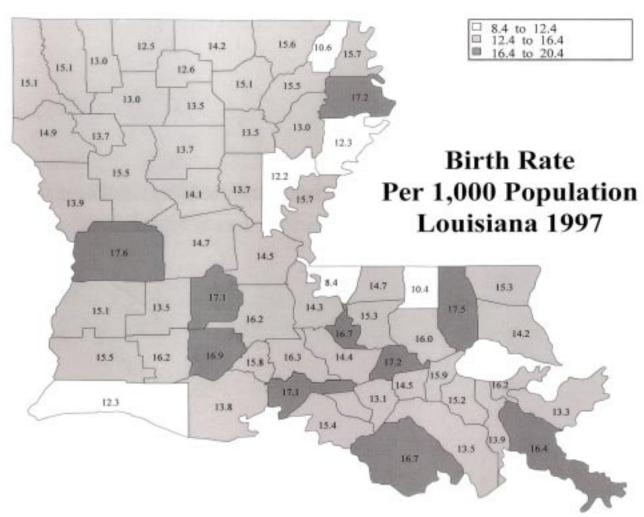
Source: Louisiana State Center for Health Statistics



Source: Louisiana State Center for Health Statistics



There is also disparity among parishes in terms of birth rate. Vernon parish has the highest rate at 20 births per 1,000 population. This is more than twice the rate of West Feliciana (8.1), the parish with the lowest birth rate.





# Live Births by Race and Age of Mother, Parish of Occurrence and Parish of Residence Louisiana. 1997

Louisiana, 1997 Residence													
							Res		in Year	·c			
Parish	Total by	Total by	Rate	Race	Less than	15-19	20-24				40-44	45+	Unk
	Occurrence		71010	7.400	15	70 70						70	<b>0</b>
Louisiana	66188		15.2	ALL	294	11931		17005	11509	4762	868	41	2
	37943			White	39	4982		11114	7801	3113		26	
	26843			Black	251	6799			3355		323	13	-
	1402	1394		Other	4	150			353	152	23	2	_
Acadia	483			ALL	6	210	296		136	59	12	1	-
	314			White	3	131	211		112	49	7	-	-
	168	258		Black	3	79	84	55	23	9	5	-	-
	1	3		Other	-	-	1	-	1	1	-	-	-
Allen	4		13.4	ALL	-	67	119		29	12	7	2	-
	3			White	-	45	90		26	12	6	2	-
	1	66		Black	-	21	27	14	3	-	1	-	-
	-	6		Other	-	1	2		-	_	-	-	_
Ascension	6			ALL	5	154	306		234	71	10	-	-
	3			White	2	91	196		198	54	8	-	-
	3	300		Black	3	63		72	36	17	2	-	-
	-	3		Other	-	-	3		-	-	-	-	_
Assumption	2			ALL	-	69	79		39	17	6	1	-
	1	184		White	-	31	51		30	10		1	-
	1	114		Black	-	38	28	27	9	7	5	-	-
	-	-		Other	-	-	-	_	-	-	-	-	-
Avoyelles	3			ALL	5	128	202		70	30	10	-	-
		369		White	1	70	130		50			-	-
	3			Black	4	58	71	41	19	12	8	-	-
_	-	3		Other	-	-	1	1	1	-	-	-	-
Beauregard	596			ALL	1	95	170		63	31	6	-	-
	477	400		White	1	73	136		57	24	3	-	-
	106			Black	-	22	31	5	4	7	2	-	-
D: :::	13		40.0	Other	-	-	3		2	-	1	-	_
Bienville	-	217		ALL	-	53		49	26	10	2	-	-
	-	120		White	-	25			15		-	-	-
	-	96		Black	-	28	33	17	11	5	2	-	-
Danaiar	705	1202	117	Other	-	-	400	204	250	90	- 10	-	_
Bossier	785			ALL	3	236			256	80		1	-
	637	968		White	- 2	132			199	60	7	J	-
	127 21			Black	3	100			47 10	15 5		-	-
Coddo				Other	25	605						- 1	_
Caddo	5838 2918			ALL White	25	695 180			555 318				-
	2840			Black	- 25	510					25 20	-	-
	80			Other	25	510			221 16	120		<b>'</b>	-
Calcagiou	3207			ALL	6	520	8 820		449	6 179		-	_
Calcasieu	2313			White		520 285							-
	864			Black		233					8	1	-
	30				5				110				-
	30	28		Other	_	2	5	2	4	5	_	-	_



## Live Births by Race and Age of Mother, Parish of Occurrence and Parish of Residence Louisiana 1997

		1		Lo	uisiana, 19	97							
				1	Ī		Res	sidence					
l						45.40	00.04		in Year		10.44	4=-	
Parish	Total by Occurrence	Total by Residence	Rate	Race	Less than 15	15-19	20-24	25-29	30-34	35-39	40-44	45+	Unk
Caldwell	1	138	13.6	ALL	2	28	53	29	19		3	-	-
	1	107		White	-	25	39	25	13		3	-	-
	-	30		Black	2	3	14	3	6	2	-	-	-
	-	1		Other	-	-	-	1	-	-	-	-	-
Cameron	-	107	11.7	ALL	-	24	48		16	3	3	-	-
	-	100		White	-	24	45	12	13	3	3	-	-
	-	6		Black	-	-	3	-	3	-	-	-	-
	-	1		Other	-	-	-	1	-	-	-	_	-
Catahoula	-	136	12.6		-	36	56		14	6	-	-	-
	-	96		White	-	18				5	-	-	-
	-	40		Black	-	18	14	4	3	1	-	-	-
01 11	-	-	40.5	Other	-	-	-	-	-	-	-	-	-
Claiborne	109	214	12.5		1	42	69		41	11	2	-	-
	44	101		White	-	14	28		25		1	-	-
	65	111		Black	1	28	39	19	16	/	1	_	_
Concordia	228	2 328	15.8	Other	4	84	2 127	65	38	9	- 1	-	-
Concordia	69	154	15.6	White	4	29	64	33	22	6		_	_
	157	172		Black	4	55	63		16			_	_
	2	2		Other	4	55	03	2	10	3	'		_
DeSoto	1	349	13.7	ALL	2	71	116		42	17	4	_	
Beedle		186	10.7	White	_	26	66		26		2	_	_
	_	163		Black	2	45			16		2	_	_
	_	-		Other	_	-	-	_	-	'-	_	_	_
E. Baton Rouge	9685	6072	15.3		33	877	1580	1624	1272	550	130	6	_
Ĭ	5631	2870		White	_	214						4	_
	3885	3045		Black	33	658	1045	673	397	188	49	2	_
	169	157		Other	_	5	28	48	52	19	5	-	-
E. Carroll	2	144	15.6	ALL	2	31	51	32	20	5	3	-	_
	-	30		White	-	2	11	8	4	3	2	-	-
	2	114		Black	2	29	40	24	16	2	1	-	-
	-	-		Other	-	-	-	-	-	-	-	-	-
E. Feliciana	4	307	14.7		-	73	98		37	14		-	-
	2	158		White	-	28						-	-
	1	147		Black	-	45	48		15	9	2	-	-
	1	2		Other	-	-	-	2				-	-
Evangeline	775	585		ALL	5	130	184		71	21		-	-
	451	375		White	2	61	120					-	-
	310			Black	3	69	63	43	21	8		-	-
Franklin	14		10.0	Other ALL	- 1	- 64	1440	74	1	-	-	-	
Franklin	5				1	64 28	113 63		31		2	_	-
	3			White Black		28 36			16 15		1	-	-
	2	131			1	30	50	23	15	l <sup>5</sup>	"	-	-
	-	1		Other	-	-	-	1	-		_	-	-



# Live Births by Race and Age of Mother, Parish of Occurrence and Parish of Residence Louisiana. 1997

	1	1		Louisiana, 1997 Residence									
							Res		in Year	~			
Parish	Total by	Total by	Rate	Race	Less than	15-19	20-24				40-44	45+	Unk
	Occurrence				15								
Grant	2	262	13.9	ALL	-	53	90	57	38	22	2	-	-
	2	230		White	-	46	79	48	36	20	1	-	-
	-	31		Black	-	6	11	9	2	2	1	-	-
	-	1		Other	-	1	-	-	-	-	-	-	-
Iberia	1032	1225	17.1	ALL	5	244	394	298	196	79	9	-	-
	576	684		White	1	103	204	194	124	53	5	-	-
	437	515		Black	4	133	180	101	70	23	4	-	-
	19	26		Other	-	8	10	3	2	3	-	-	-
Iberville	495	444	14.3	ALL	5	73	133	126	79	27	1	-	-
	95	201		White	-	23	54	69	45	10	-	-	-
	398	243		Black	5	50	79	57	34	17	1	-	-
	2	-		Other	-	-	-	-	-	-	-	-	-
Jackson	2	209	13.5	ALL	1	31	78	52	38	9	-	ı	-
	-	138		White	-	15	52	36	28	7	-	-	-
	2	70		Black	1	16	26	15	10	2	-	-	-
	-	1		Other	-	-	-	1	-	-	-	-	-
Jefferson	7864	6327	14	ALL	19	935	1584	1672	1462	557	94	4	-
	5097	4008		White	5	456	826	1163	1092	395	69	2	-
	2407	1964		Black	12	447	692	403	277	113		2	-
	360	355		Other	2	32	66	106	93	49	7	ı	-
Jeff. Davis	390	515	16.3	ALL	2	109	159	124	78	35	8	ı	-
	308			White	-	77	121	105	61	30	7	-	-
	80	106		Black	2	31	37	15	16	4	1	-	-
	2	8		Other	-	1	1	4	1	1	-	-	-
Lafayette	5003		15.8	ALL	11	393		791	623		40	2	-
	3395	1959		White	4	188	454	598	476	208	29	2	-
	1527	864		Black	7	201	293	180	132	40	11	-	-
	81	48		Other	-	4	8	13	15		-	-	-
Lafourche	1014		13.4	ALL	3	204	336	338	203	89	8	-	-
	923	909		White	1	136	247	283	169	68	5	-	-
	72	225		Black	2	59		41	29	17	3	-	-
	19			Other	-	9	10	14	5	+	-	-	-
LaSalle	116			ALL	-	35			23			-	-
	67	168		White	-	28		52	21		-	-	-
	49	22		Black	-	7	8	2	2	2	1	-	-
	-	-		Other	-	-	-	-	-	-	-	-	-
Lincoln	554			ALL	3	102	178		75			1	-
	283			White	-	31			47	22	5	1	-
	267			Black	3	71	104	64	27	4	3	-	-
	4			Other	-	-	1	-	1	-	1	-	-
Livingston	4			ALL	1	221	400	428	199		13	1	-
	4	1232		White	1	201		409	188			1	-
	-	91		Black	-	19		17	9	7	2	-	-
	-	7		Other	_	1	2	2	2	-	-	-	-



# Live Births by Race and Age of Mother, Parish of Occurrence and Parish of Residence Louisiana. 1997

Louisiana, 1997 Residence													
							Res						
Daviale	Tatallan	Tatalha	Data		1 41	45.40	20.04		in Year		140.44	45.	11
Parish	Total by Occurrence	Total by Residence	Rate	Race	Less than 15	15-19	20-24	25-29	30-34	35-39	40-44	45+	Unk
Madison	-	224	16.8	ALL	4	48	89	48	23	10	2	_	_
	_	55		White	_	9	21	13	7	4		_	_
	_	169		Black	4	39	68	35	16	6	· ·	_	_
	_	-		Other	_	-	-	-	-	_	_	_	_
Morehouse	430	499	15.7	ALL	1	137	180	116	46	17	2	_	_
	269	220		White	_	41	76	70	24	9		_	_
	161	279		Black	1	96	104	46	22	8		_	_
	-	-		Other	_	-	-	-	-	-	-	-	_
Natchitoches	646	593	15.6	ALL	2	124	207	144	79	32	5	-	-
	334	309		White	1	45	104	92	48	16		-	-
	305	278		Black	1	77	102	50	30	16	2	-	-
	7	6		Other	_	2	1	2	1	_	-	-	-
Orleans	9228	7734	16.4	ALL	46	1529	2383	1672	1324	619	151	10	-
	2576	1419		White	1	71	222	405	421	237	57	5	-
	6377	6098		Black	45	1448	2127	1194	833	358	89	4	-
	275	217		Other	-	10	34	73	70	24	5	1	-
Ouachita	3586	2217	15.1	ALL	15	381	714	605	330	141	31	-	-
	1995	1191		White	-	130	331	403	219	96	12	-	-
	1575	1014		Black	15	251	382	199	105	43	19	-	-
	16	12		Other	-	-	1	3	6	2	-	-	-
Plaquemines	9	425	16.4	ALL	1	82	135	113	58	30		-	-
	1	272		White	-	42	82	85	44	17		-	-
	7	130		Black	1	38	44	21	12	10		-	-
	1	23		Other	-	2	9	7	2	3		-	-
Pointe Coupee	2	331	14.1	ALL	3	68	100	72	54	33		-	-
	-	161		White	-	20	42	46	37	15		-	-
	2	170		Black	3	48	58	26	17	18	-	-	-
	-	-		Other	_			-			-	_	_
Rapides	3033			ALL	7	381	566	482	295	109		-	-
	2004	1085		White	1	166	308		201	72		-	-
	1003	746		Black	6	212	253		89	34	3	-	-
Dad Divon	26			Other	-	3	5		5			-	-
Red River	'	134		ALL	3	24	47	36	16			-	-
		67		White	- 2	9	24					-	-
	1	65 2		Black	3	15	22	18	3	3	'	_	-
Richland	<u>-</u> 1	324	15.0	Other ALL	3	- 75	1 111	- 76	40	- 17	2	_	-
Richianu	'	166		White	3	23	57	49		9		_	_
		157		Black	3	23 52	57 54		12	8		_	_
	'	1 137		Other	3	52	54	21	12	ľ	'	_	-
Sabine	4		13.0	ALL	_	63	116	84	52	13	3	-	_
Capille	4	232		White		47	83		38			_	_
	4	85		Black		13	31		10			_	_
		14		Other		3	2	3	10	1	1	_	_ [
	_	14			_	3		J	4	<u> </u>	<u>'</u>	_	_



## Live Births by Race and Age of Mother, Parish of Occurrence and Parish of Residence Louisiana, 1997

					uisiana, 18		Res	sidence	<del></del>				
								Age	in Year	'S			
Parish	Total by	Total by	Rate	Race	Less than	15-19	20-24			35-39	40-44	45+	Unk
	Occurrence	Residence			15								
St. Bernard	2	884	13.2	ALL	-	121	237	260	180	76	10	1	-
	1	784		White	-	104	208	231	162	70	9	_	_
	_	75		Black	_	17	23		11	4	1	-	_
	1	25		Other	_	-	6		7	2	_	_	_
St. Charles	2	716	15.1		1	110	169		167	73		-	-
	1	489		White	1	52	91		137	57		-	_
	1	222		Black	_	58	77	44	29	14		_	_
		5		Other	_	-	1	1	1	2		-	_
St. Helena	1	101	10.4	ALL	1	20	38	23	14	5		_	_
		48		White	_	8						_	_
	1	53		Black	1	12	20		8	2		_	_
	_ '	-		Other	_	-	_	'-	_	_	_	_	_
St. James	3	303	14	ALL	2	41	77	91	57	35	_		_
ot. dames	3	132		White	_	5	26		34	17		_	_
		171		Black	2	36		41	23	18			
				Other	_	-	_	"_	20	'-			
St. John	434	674	16	ALL	2	123	184	169	141	49	4	2	_
Ot. 301111	238	321	10	White	_	37	70		84	33		1	_
	191	349		Black	2	86			54	16		1	_
	5	4		Other		00	114	'4	3	10			_
St. Landry	1293	1340	16.2	ALL	7	275	416	324	207	93	18		<del>-</del>
St. Lanury	749	672	10.2	White	2	105	193		122	59 59		_	_
	540	664		Black	5	168	222		85	34		_	_
		004		Other	5	2			00	34	12	_	_
St. Martin	4	755	16.0	ALL	5	144	213	1 177	138	- 66	11	1	
St. Martin		755 429	10.2									1	_
	1			White	2	65 70			83			- 1	-
	-	316		Black	3	78			55	25	I	-	-
Ct Mon.	- 644	10	1 E E	Other	-	104			120	1		-	-
St. Mary	644	887 504	15.5		2	194				44		-	
	338	504		White	-	97	154		89	25 18		-	'
	291	364		Black	2	95 2			39 2	1 10		-	_
C4. Taurana and	15		4.4	Other	-							-	_
St. Tammany	3283		14	ALL	2	312	518			324		4	_
	2624	2144		White	-	212	402					4	-
	631	361		Black	2	98			36			-	-
Tanadaalaa	28	27	47.0	Other	-	2	7		13	2		-	<del>-</del>
Tangipahoa	1593		17.3		8	401	541			77 57		1	1
	913			White	2	166	293		174	57		-	<sup>1</sup>
	672	678		Black	6	233			56		3	1	_
_	8	10	4	Other	-	2	2		3		-	-	
Tensas	1	85	12.6	ALL	1	27	26		8	7	2	-	-
		30		White	-	5				1	1	-	-
	1	55		Black	1	22	15	6	4	6	1	-	-
	-	-		Other	-	-	-	-	-	-	-	-	-



## Live Births by Race and Age of Mother, Parish of Occurrence and Parish of Residence

				LO	uisiana, 19	31	Pos	sidence	,				
							Kes		in Year	<u>~</u>			
Parish	Total by	Total by	Rate	Race	Less than	15-10	20-24	25-20	30-34	35-30	40-44	45+	Unk
ransn	Occurrence	_	Nate	Nace	15	10-13	20-24	20-23	30-34	00-00	70-77	40.	Olik
Terrebonne	2232	1701	16.6	ALL	7	364	469	447	281	116	16	1	_
101100011110	1380	1171	10.0	White	2	219	317	324	217	83			_
	702	405		Black	4	103	119		47	28		_	_
	150			Other	1	42	33		17	5		1	
Union	2	306		ALL	2	58	112		45				_
Official	1	207	17.1	White	_	36	72	57	33				
		97		Black	2	22	40	18	11	3			
	_'	2		Other	_		-	10	1		<u>'</u>		
Vermilion	229	710	13.8	ALL	3	114	213	210	125	44	1	_	_
Vermillori	127	542		White	2	85	151	170	99			_	_
	97	150		Black		28	53	34	24	10		_	_
					Į	20				10	_	_	_
Vernon	5 577	18 962		Other ALL	2	166	9 383	6 263	2 109	37	-	_	-
vernon											2 2	_	_
	392	730		White	1	125	289	208	81	24		_	_
	148	187		Black	-	37	74	45	21	10		-	_
\A/     '	37	45	45.4	Other	1	4	20	10	7	3		-	-
Washington	39	662	15.1	ALL	5	165	248	134	67	36		-	-
	12	421		White	2	91	152	99	49	22	6	-	-
	27	240		Black	3	74	96	34	18	14	1	-	-
	-	1		Other	-	-	-	1	-	-	-	-	-
Webster	698	555	13	ALL	3	127	191	130	66		4	-	-
	365			White	-	56	105		37	20		-	-
	327	241		Black	3	71	86	38	28		2	-	-
	6	3		Other	-	-	-	1	1	1	-	-	-
W. Baton Rouge	2	344		ALL	2	67	99	94	56		5	-	-
	-	185		White	-	26	52	57	37	9	4	-	-
	2	158		Black	2	40	47	37	19	12	1	-	-
	-	1		Other	-	1	-	-	-	-	-	-	-
W. Carroll	-	129		ALL	-	26	54	25	16	7	1	-	-
	-	96		White	-	20	39	20	12	4	1	-	_
	-	33		Black	-	6	15	5	4	3	-	-	_
	-	-		Other	-	-	-	-	-	-	-	-	-
W. Feliciana	1	109	8.1	ALL	1	18	22	35	23	9	-	1	-
	-	59		White	-	2	13	24	14	5	-	1	_
	1	50		Black	1	16	9	11	9	4	-	-	-
			<u></u>	Other									
Winn	1	231	13.4	ALL	2	59	70	60	30	8	1	1	-
	1	133		White	-	27	42	38	20	5	1	_	_
	-	98		Black	2	32	28	22	10	3	-	1	-
	_	-		Other	_	_	_	-	_	_	_	_	_
Out of State	857	1098		ALL	_	108	295	342	206	104	32	9	2
	435			White	_	79			182			9	1
	420			Black	_	29	56		18		6	_	1
	2	10		Other	_		2	2	6	·	_	_	

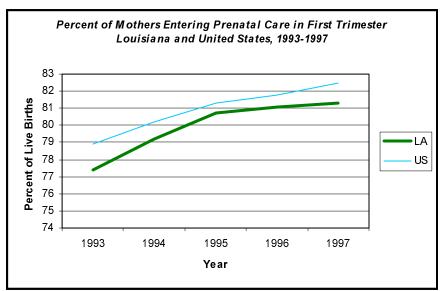
Source: Louisiana State Center for Health Statistics



### **Prenatal Care**

Prenatal care is recognized as an important means of providing medical, nutritional, and educational interventions to reduce the risk of adverse pregnancy outcomes and to identify women at high risk for these outcomes. It has been estimated that for every dollar spent on prenatal care, up to \$3.38 can be saved on direct medical costs.<sup>2</sup> Beyond the positive effect on birth outcomes, prenatal care is a vital part of women's health care, as many women (particularly adolescents, minorities, and women of low socio-economic status) first enter the health care system during pregnancy.<sup>3</sup>

Prenatal care is most effective when it begins during the early stages of pregnancy. At the national level, the percentage of mothers entering prenatal care in the first trimester has been steadily increasing. Louisiana, while consistently below the national percentage, has shown similar improvement.



Source: Louisiana State Center for Health Statistics National Center for Health Statistics (preliminary 1997 data)

In the following table, percentages of women utilizing prenatal care are furnished to allow comparison of Louisiana with neighboring states. (As previously noted, preliminary NCHS 1997 numbers are used for cross-state comparisons.) In 1997, 81.3% of Louisiana residents who gave birth entered prenatal care in the first trimester, as compared with 82.5% of mothers in the United States. Louisiana ranked 37th in the nation and second among neighboring states.

<sup>&</sup>lt;sup>2</sup> Institute of Medicine. (1994). "Prenatal Care and Low Birthweight: Effects on Health Care Expenditures." In: *Preventing Low Birthweight*. (pp. 212-37) Washington, DC: National Academy Press.

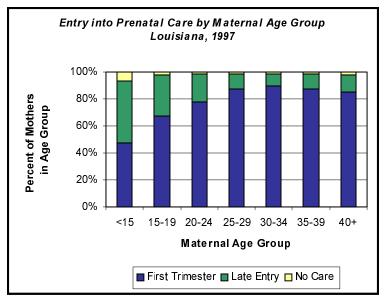
Fiscella, K. (1995). "Does Prenatal Care Improve Birth Outcomes? A Critical Review." Obstetrics & Gynecology 85, 468-79.



Percent of Mothers Receiving Prenatal Care in the First Trimester of Pregnancy Louisiana, Neighboring States, and United States, 1997											
State	Percent of Mothers	National Ranking									
Alabama	82.3	32									
Arkansas	75.7	48									
Louisiana	81.3	37									
Mississippi	80.0	42									
Texas	78.5	46									
United States	82.5	-									

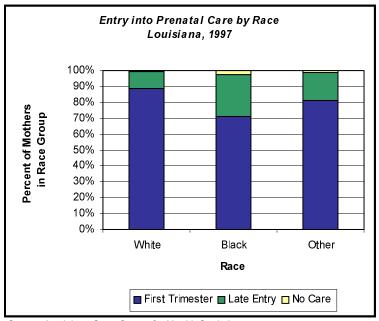
Source: National Center for Health Statistics (preliminary 1997 data)

Less than half (47.3%) of mothers under the age of 15 started prenatal care in the first trimester of pregnancy, and 6.5% of this age group never received any prenatal care. However, entry into care improved with age before leveling off in the mid-twenties.



Source: Louisiana State Center for Health Statistics

African-American women entered into prenatal care in a timely manner less frequently than whites and other races. Only 71.1% of African-American mothers had their first prenatal visit in the first trimester, compared with 88.7% of white mothers. Also, 2.7% of African-American mothers received no prenatal care, as compared with 0.6% of white women.



Source: Louisiana State Center for Health Statistics

In Louisiana, adequacy of prenatal care is measured by a modified Kessner index, which defines prenatal care as adequate if the first prenatal visit occurred in the first trimester of pregnancy and if the total number of visits was appropriate to the gestational age of the baby at birth. It should be noted, however, that these measures assess neither the quality nor the content of prenatal care and, therefore, are most likely overestimates of the adequacy of the care. Of the 65,011 Louisiana residents who gave birth in 1997, 75.4% received adequate prenatal care.

Percent of Women Receiving Adequate* Prenatal Care by Parish												
		Louisiana	, 1992-199	7								
Parish	1992	1993	1994	1995	1996	1997						
Louisiana	68.2	70.1	71.8	73.5	74.8	75.4						
Acadia	69.6	65.7	52.6	50.3	57.7	59.6						
Allen	59.2	63.0	64.7	63.3	70.4	67.2						
Ascension	73.8	76.3	78.3	79.5	79.1	83.0						
Assumption	71.3	75.7	75.2	75.5	78.2	82.7						
Avoyelles	58.3	57.1	61.1	64.4	70.0	69.7						
Beauregard	63.0	58.5	60.7	60.7	63.5	70.8						
Bienville	46.9	57.0	58.1	61.5	57.2	64.5						
Bossier	72.9	77.2	77.2	79.5	77.9	76.3						
Caddo	59.4	69.1	70.4	71.0	69.5	68.0						
Calcasieu	74.9	76.3	78.3	80.0	79.6	81.6						
Caldwell	72.7	71.6	75.4	80.7	79.4	79.0						
Cameron	73.6	79.8	81.5	88.6	84.3	84.0						
Catahoula	69.0	73.5	71.0	74.3	65.7	73.3						
Claiborne	44.1	53.4	58.1	67.4	63.4	61.0						
Concordia	61.5	67.1	65.9	72.7	73.7	65.7						
DeSoto	53.1	68.1	69.2	68.8	66.8	68.1						

\*According to modified Kessner index

Source: Louisiana State Center for Health Statistics



East Baton Rouge         72.2         72.0         74.5         78.3         75.7         75.4           East Carroll         52.6         57.2         56.1         55.9         69.6         60.3           East Feliciana         61.4         63.7         65.8         67.7         60.1         70.1           Evangeline         61.9         65.1         66.2         62.7         69.7         69.7           Franklin         68.5         66.2         71.7         74.6         65.4         70.3           Grant         69.7         63.0         72.4         77.0         79.8         79.1           Iberia         74.0         64.6         66.5         66.9         61.2         61.1           Iberville         61.4         67.9         73.0         75.4         74.4         78.           Jackson         53.5         47.2         47.9         57.8         59.1         57.3           Jackson         75.6         77.9         79.4         81.6         61.1         83.3           Jefferson Davis         58.4         59.5         58.6         62.6         83.3         62.6           Lafayette         77.5         76.2 <th colspan="7">Percent of Women Receiving Adequate* Prenatal Care by Parish Louisiana, 1992-1997</th>	Percent of Women Receiving Adequate* Prenatal Care by Parish Louisiana, 1992-1997						
East Carroll 52.6 57.2 56.1 55.9 69.6 60. East Feliciana 61.4 63.7 65.8 67.7 60.1 70.1 East Feliciana 61.4 63.7 65.8 67.7 60.1 70.1 Evangeline 61.9 65.1 66.2 62.7 69.7 69.7 69.7 Franklin 68.5 66.2 71.7 74.6 65.4 70.3 Grant 69.7 63.0 72.4 77.0 79.8 79.1 Iberia 74.0 64.6 66.5 66.9 61.2 61.1 Iberial 74.0 64.6 66.5 66.9 61.2 61.1 Iberial 61.4 67.9 73.0 75.4 74.4 78.  Jackson 53.5 47.2 47.9 57.8 59.1 57.1 Jackson 53.5 47.2 47.9 57.8 59.1 57.1 Jefferson Davis 58.4 59.5 58.6 62.6 83.3 62.1 Lafayette 77.5 76.2 79.0 72.5 74.1 80. Lafourche 74.7 74.6 78.0 83.4 79.8 78.  Lafourche 74.7 74.6 78.0 83.4 79.9 71. Lincoln 40.3 43.9 36.7 48.6 49.9 49.1 Livingston 78.1 83.3 79.4 79.7 83.9 85.1 Morehouse 53.9 53.2 55.6 50.0 50.6 49.1 Natchitoches 59.7 61.4 60.7 73.7 72.0 68. Morehouse 59.7 65.0 66.7 65.8 71.4 74.0 79.0 74.1 Ouachita 70.0 66.3 74.2 78.3 78.0 77. Plaquemines 74.4 75.4 71.7 74.0 79.0 74.7 Plaquemines 74.4 75.4 71.7 74.0 79.0 74.7 Plaquemines 74.4 75.4 71.7 74.0 79.0 74.7 Reichland 65.8 70.3 63.9 63.2 65.5 65.0 50.0 50.6 49.1 Natchitoches 59.7 61.4 60.7 73.7 72.0 68.0 Natchitoches 59.7 65.0 66.7 65.8 71.4 74.7 Plaquemines 74.4 75.4 71.7 74.0 79.0 74.7 Reichland 65.8 70.3 63.9 68.2 69.1 76.5 76.5 76.5 76.5 76.5 76.5 76.5 76.5	Parish	1992	1993	1994	1995	1996	1997
East Feliciana 61.4 63.7 65.8 67.7 60.1 70.1 Evangeline 61.9 65.1 66.2 62.7 69.7 69.1 Franklin 68.5 66.2 71.7 74.6 65.4 70.1 Grant 69.7 63.0 72.4 77.0 79.8 79.1 Iberia 74.0 64.6 66.5 66.9 61.2 61.1 Iberville 61.4 67.9 73.0 75.4 74.4 78.1 Jackson 53.5 47.2 47.9 57.8 59.1 57.8 Jefferson 53.5 47.2 47.9 57.8 59.1 57.8 Jefferson 53.5 47.2 47.9 79.4 81.6 61.1 83.1 Jefferson Davis 58.4 59.5 58.6 62.6 83.3 62.1 Lafayette 77.5 76.2 79.0 72.5 74.1 83.1 Lafourche 74.7 74.6 78.0 83.4 79.8 78.1 Lafourche 75.1 83.3 79.4 79.7 83.9 85.1 Madison 60.3 52.1 57.1 56.8 64.4 55.1 Madison 60.3 52.1 57.1 56.8 64.4 55.1 Machinothes 59.7 61.4 60.7 73.7 72.0 68.1 74.2 78.3 78.0 77.2 10.1 Calculate 70.0 66.3 74.2 78.3 78.0 77.2 10.1 Calculate 70.0 66.3 74.2 78.3 78.0 77.4 Plaquemines 74.4 75.4 71.7 74.0 79.0 74.4 Pointe Coupee 68.9 68.2 69.1 76.5 76.5 76.5 75.1 Sabine 56.0 66.2 64.4 72.9 69.8 73.3 St. Bernard 76.1 82.0 85.5 86.7 88.5 89.1 St. Landry 61.2 54.5 57.4 62.0 66.1 63.1 St. James 55.7 63.0 66.2 64.4 72.9 69.8 73.3 St. Landry 61.2 54.5 57.4 62.0 66.1 63.1 St. James 55.7 63.0 66.2 64.4 72.9 69.8 73.3 St. Landry 61.2 54.5 57.4 62.0 66.1 63.1 66.3 St. James 55.7 63.0 65.2 65.5 68.2 63.3 St. Landry 61.2 54.5 57.4 62.0 66.1 63.1 66.3 St. James 55.7 63.0 65.2 65.5 68.2 63.3 St. Landry 61.2 54.5 57.4 62.0 66.1 63.1 66.3 St. James 55.7 63.0 59.7 66.1 63.1 66.3 St. James 6	East Baton Rouge	72.2	72.0	74.5	78.3	75.7	75.4
Evangeline         61.9         65.1         66.2         7.7         69.7         69.7           Franklin         68.5         66.2         71.7         74.6         65.4         70.3           Grant         69.7         63.0         72.4         77.6         65.4         70.3           Iberial         74.0         64.6         66.5         66.9         61.2         61.1           Iberville         61.4         67.9         73.0         75.4         74.4         78.           Jackson         53.5         47.2         47.9         57.8         59.1         57.5           Jefferson         75.6         77.9         79.4         81.6         61.1         83.3           Jefferson Davis         58.4         59.5         58.6         62.6         83.3         62.1           Lafourche         77.7         76.2         79.0         72.5         74.1         80.           Lafourche         74.7         74.6         78.0         83.4         79.8         79.1           Lafourche         74.7         74.6         78.0         83.7         79.7         71.8           Lafourche         74.7         74.6 <td< td=""><td>East Carroll</td><td>52.6</td><td>57.2</td><td>56.1</td><td>55.9</td><td>69.6</td><td>60.3</td></td<>	East Carroll	52.6	57.2	56.1	55.9	69.6	60.3
Franklin         68.5         66.2         71.7         74.6         65.4         70.           Grant         69.7         63.0         72.4         77.0         79.8         79.9           Iberia         74.0         64.6         66.5         66.9         61.2         61.2           Iberia         74.0         64.6         66.5         66.9         61.2         61.2           Jackson         53.5         47.2         47.9         57.8         59.1         57.3           Jefferson         75.6         77.9         79.4         81.6         61.1         83.1           Jefferson Davis         58.4         59.5         58.6         62.6         83.3         62.9           Lafourche         74.7         74.6         78.0         83.4         79.8         79.           Lafourche         74.7         74.6         78.0         83.4         79.8         79.           LaSalle         68.0         68.8         65.7         72.9         71.           LaSalle         68.0         68.8         65.7         72.9         71.           Livingston         78.1         83.3         79.4         79.7         83.9	East Feliciana	61.4	63.7	65.8	67.7	60.1	70.8
Grant         69.7         63.0         72.4         77.0         79.8         79.1           Iberia         74.0         64.6         66.5         66.9         61.2         61.1           Iberville         61.4         67.9         73.0         76.4         78.4           Jackson         53.5         47.2         47.9         57.8         59.1         57.1           Jefferson         75.6         77.9         79.4         81.6         61.1         83.3           Jefferson Davis         58.4         59.5         58.6         62.6         83.3         62.1           Lafayette         77.5         76.2         79.0         72.5         74.1         80.           Lafourche         74.7         74.6         78.0         83.4         79.8         78.1           Lafourche         74.7         74.6         78.0         83.4         79.8         79.8         78.1           Lafautte         76.7         74.6         78.0         83.4         79.8         79.8         78.2           Lafautte         76.0         66.8         68.7         65.7         72.9         71.1           Liafourche         74.7 <td< td=""><td>Evangeline</td><td>61.9</td><td>65.1</td><td>66.2</td><td>62.7</td><td>69.7</td><td>69.0</td></td<>	Evangeline	61.9	65.1	66.2	62.7	69.7	69.0
Iberville	Franklin	68.5	66.2	71.7	74.6	65.4	70.3
Iberville	Grant	69.7	63.0	72.4	77.0	79.8	79.5
Jackson         53.5         47.2         47.9         57.8         59.1         57.1           Jefferson         75.6         77.9         79.4         81.6         61.1         83.3           Jefferson Davis         58.4         59.5         58.6         62.6         83.3         63.2           Lafayette         77.5         76.2         79.0         72.5         74.1         80.           Lafourche         74.7         74.6         78.0         83.4         79.8         78.           LaSalle         68.0         66.8         68.7         65.7         72.9         71.           Lincoln         40.3         43.9         36.7         48.6         49.9         49.9           Livingston         78.1         83.3         79.4         79.7         83.9         85.5           Madison         60.3         52.1         57.1         56.8         64.4         55.           Morehouse         53.9         53.2         55.6         50.0         50.6         49.9           Natchitoches         59.7         65.0         66.7         55.8         71.4         74.2           Ouachita         70.0         66.3         <	Iberia	74.0	64.6	66.5	66.9	61.2	61.1
Jefferson         75.6         77.9         79.4         81.6         61.1         83.1           Jefferson Davis         58.4         59.5         58.6         62.6         83.3         62.1           Lafayette         77.5         76.2         79.0         72.5         74.1         88.7           Lafourche         74.7         74.6         78.0         83.4         79.8         78.3           LaSalle         68.0         66.8         68.7         65.7         72.9         71.           Lincoln         40.3         43.9         36.7         48.6         49.9         49.2           Livingston         78.1         83.3         79.4         79.7         83.9         85.5           Madison         60.3         52.1         57.1         56.8         64.4         49.9         49.2           Marchitoches         59.7         61.4         60.7         73.7         72.0         68.3           Orleans         59.7         65.0         66.7         65.8         71.4         74.1           Ouachita         70.0         66.3         74.2         74.0         79.0         74.5           Plaquemines         74.4	Iberville	61.4	67.9	73.0	75.4	74.4	78.1
Jefferson Davis         58.4         59.5         58.6         62.6         83.3         62.1           Lafayette         77.5         76.2         79.0         72.5         74.1         80.1           Lafourche         77.7         74.6         78.0         83.4         79.8         78.1           LaSalle         68.0         66.8         68.7         65.7         72.9         77.1           Lincoln         40.3         43.9         36.7         48.6         49.9         49.1           Livingston         78.1         83.3         79.4         79.7         83.9         85.5           Madison         60.3         52.1         57.1         56.8         64.4         59.1           Morehouse         53.9         53.2         55.6         50.0         50.6         49.1           Matchitoches         59.7         61.4         60.7         73.7         72.0         68.9           Orleans         59.7         65.0         66.7         65.8         71.4         74.1           Ouachita         70.0         66.3         74.2         78.3         78.0         77.7           Pointe Coupee         68.9         68.2	Jackson	53.5	47.2	47.9	57.8	59.1	57.8
Lafayette         77.5         76.2         79.0         72.5         74.1         80.           Lafourche         74.7         74.6         78.0         83.4         79.8         78.           LaSalle         68.0         66.8         68.7         65.7         72.9         71.           Lincoln         40.3         43.9         36.7         48.6         49.9         49.           Livingston         78.1         83.3         79.4         79.7         83.9         85.           Madison         60.3         52.1         57.1         56.8         64.4         55.           Morehouse         53.9         53.2         55.6         50.0         50.6         49.           Natchitoches         59.7         65.0         66.7         65.8         71.4         74.           Orleans         59.7         65.0         66.7         65.8         71.4         74.           Ouachita         70.0         66.3         74.2         78.3         78.0         77.           Plaquemines         74.4         75.4         71.7         74.0         79.0         74.1           Pointe Coupee         68.9         68.2         69.	Jefferson	75.6	77.9	79.4	81.6	61.1	83.6
Lafayette         77.5         76.2         79.0         72.5         74.1         80.           Lafourche         74.7         74.6         78.0         83.4         79.8         78.           LaSalle         68.0         66.8         68.7         65.7         72.9         71.           Lincoln         40.3         43.9         36.7         48.6         49.9         49.           Livingston         78.1         83.3         79.4         79.7         83.9         85.           Madison         60.3         52.1         57.1         56.8         64.4         55.           Morehouse         53.9         53.2         55.6         50.0         50.6         49.           Natchitoches         59.7         65.0         66.7         65.8         71.4         74.           Orleans         59.7         65.0         66.7         65.8         71.4         74.           Ouachita         70.0         66.3         74.2         78.3         78.0         77.           Plaquemines         74.4         75.4         71.7         74.0         79.0         74.1           Pointe Coupee         68.9         68.2         69.							
Lafourche         74.7         74.6         78.0         83.4         79.8         78.1           LaSalle         68.0         66.8         68.7         65.7         72.9         71.1           Lincoln         40.3         43.9         36.7         48.6         49.9         49.1           Livingston         78.1         83.3         79.4         79.7         83.9         85.5           Madison         60.3         52.1         57.1         56.8         64.4         55.5           Morehouse         53.9         53.2         55.6         50.0         50.6         49.4           Natchitoches         59.7         61.4         60.7         73.7         72.0         68.9           Orleans         59.7         65.0         66.7         65.8         71.4         74.7           Ouachita         70.0         66.3         74.2         78.3         78.0         77.2           Plaquemines         74.4         75.4         71.7         74.0         79.0         74.1           Pointe Coupee         68.9         68.2         69.1         76.5         76.5         75.5           Rapides         66.4         62.7							80.3
LaSalle         68.0         66.8         68.7         65.7         72.9         71.           Lincoln         40.3         43.9         36.7         48.6         49.9         49.2           Livingston         78.1         83.3         79.4         79.7         83.9         85.3           Madison         60.3         52.1         57.1         56.8         64.4         55.3           Morehouse         53.9         53.2         55.6         50.0         50.6         49.9           Natchitoches         59.7         61.4         60.7         73.7         72.0         68.9           Orleans         59.7         65.0         66.7         65.8         71.4         74.7           Ouachita         70.0         66.3         74.2         78.3         78.0         77.7           Plaquemines         74.4         75.4         71.7         74.0         79.0         74.1           Pointe Coupee         68.9         68.2         69.1         76.5         76.5         75.5           Rapides         66.4         62.7         68.0         70.3         74.7         74.4           Red River         59.9         71.2	,			78.0			
Lincoln         40.3         43.9         36.7         48.6         49.9         49.1           Livingston         78.1         83.3         79.4         79.7         83.9         85.5           Madison         60.3         52.1         57.1         56.8         64.4         55.9           Morehouse         53.9         53.2         55.6         50.0         50.6         49.3           Natchitoches         59.7         61.4         60.7         73.7         72.0         68.3           Orleans         59.7         65.0         66.7         65.8         71.4         74.4           Ouachita         70.0         66.3         74.2         78.3         78.0         77.           Plaquemines         74.4         75.4         71.7         74.0         79.0         74.4           Pointe Coupee         68.9         68.2         69.1         76.5         76.5         75.5           Rapides         66.4         62.7         68.0         70.3         74.7         74.9           Red River         59.9         71.2         69.0         74.5         58.0         64.           Richland         65.8         70.3							
Livingston         78.1         83.3         79.4         79.7         83.9         85.1           Madison         60.3         52.1         57.1         56.8         64.4         55.1           Morehouse         53.9         53.2         55.6         50.0         50.6         49.4           Natchitoches         59.7         61.4         60.7         73.7         72.0         68.3           Orleans         59.7         65.0         66.7         65.8         71.4         74.7           Ouachita         70.0         66.3         74.2         78.3         78.0         77.7           Plaquemines         74.4         75.4         71.7         74.0         79.0         74.1           Pointe Coupee         68.9         68.2         69.1         76.5         76.5         75.5           Rapides         66.4         62.7         68.0         70.3         74.7         74.9           Red River         59.9         71.2         69.0         74.5         58.0         64.7           Red River         59.9         71.2         69.0         74.5         58.0         64.7           Richland         65.8         70.3							
Madison         60.3         52.1         57.1         56.8         64.4         55.           Morehouse         53.9         53.2         55.6         50.0         50.6         49.4           Natchitoches         59.7         61.4         60.7         73.7         72.0         68.9           Orleans         59.7         65.0         66.7         65.8         71.4         74.7           Ouachita         70.0         66.3         74.2         78.3         78.0         77.7           Plaquemines         74.4         75.4         71.7         74.0         79.0         74.4           Pointe Coupee         68.9         68.2         69.1         76.5         76.5         75.5           Rapides         66.4         62.7         68.0         70.3         74.7         74.4           Red River         59.9         71.2         69.0         74.5         58.0         64.           Richland         65.8         70.3         63.9         68.5         75.7         72.4           Sabine         56.0         66.2         64.4         72.9         69.8         73.           St. Charles         71.8         78.0         <							
Morehouse         53.9         53.2         55.6         50.0         50.6         49.8           Natchitoches         59.7         61.4         60.7         73.7         72.0         68.8           Orleans         59.7         65.0         66.7         65.8         71.4         74.7           Quachita         70.0         66.3         74.2         78.3         78.0         77.           Plaquemines         74.4         75.4         71.7         74.0         79.0         74.7           Pointe Coupee         68.9         68.2         69.1         76.5         76.5         75.5           Rapides         66.4         62.7         68.0         70.3         74.7         74.9           Red River         59.9         71.2         69.0         74.5         58.0         64.           Richland         65.8         70.3         63.9         68.5         75.7         72.1           Sabine         56.0         66.2         64.4         72.9         69.8         73.           St. Charles         71.8         78.0         80.7         80.0         84.9         82.6           St. Charles         71.8         78.0							
Natchitoches         59.7         61.4         60.7         73.7         72.0         68.8           Orleans         59.7         65.0         66.7         65.8         71.4         74.           Ouachita         70.0         66.3         74.2         78.3         78.0         77.           Plaquemines         74.4         75.4         71.7         74.0         79.0         74.5           Pointe Coupee         68.9         68.2         69.1         76.5         76.5         75.9           Rapides         66.4         62.7         68.0         70.3         74.7         74.7           Red River         59.9         71.2         69.0         74.5         58.0         64.           Richland         65.8         70.3         63.9         68.5         75.7         72.1           Sabine         56.0         66.2         64.4         72.9         69.8         73.           St. Bernard         76.1         82.0         85.5         86.7         88.5         89.3           St. Charles         71.8         78.0         80.7         80.0         84.9         82.6           St. James         55.7         63.0							
Orleans         59.7         65.0         66.7         65.8         71.4         74.           Ouachita         70.0         66.3         74.2         78.3         78.0         77.           Plaquemines         74.4         75.4         71.7         74.0         79.0         74.8           Pointe Coupee         68.9         68.2         69.1         76.5         76.5         75.9           Rapides         66.4         62.7         68.0         70.3         74.7         74.9           Red River         59.9         71.2         69.0         74.5         58.0         64.           Richland         65.8         70.3         63.9         68.5         77.2.         58.0         64.           Richland         65.8         70.3         63.9         68.5         77.2.         58.0         64.         72.9         69.8         73.3           St. Bernard         76.1         82.0         85.5         86.7         88.5         89.9           St. Charles         71.8         78.0         80.7         80.0         84.9         82.6           St. James         55.7         63.0         65.2         65.5         68.2							
Ouachita         70.0         66.3         74.2         78.3         78.0         77.           Plaquemines         74.4         75.4         71.7         74.0         79.0         74.4           Pointe Coupee         68.9         68.2         69.1         76.5         76.5         75.5           Rapides         66.4         62.7         68.0         70.3         74.7         74.9           Red River         59.9         71.2         69.0         74.5         58.0         64.           Richland         65.8         70.3         63.9         68.5         75.7         72.6           Sabine         56.0         66.2         64.4         72.9         69.8         73.           St. Bernard         76.1         82.0         85.5         86.7         88.5         89.9           St. Charles         71.8         78.0         80.7         80.0         84.9         82.6           St. Helena         70.9         81.7         73.8         68.4         71.6         86.2           St. James         55.7         63.0         65.2         65.5         68.2         63.3           St. John         57.5         64.9							
Plaquemines         74.4         75.4         71.7         74.0         79.0         74.8           Pointe Coupee         68.9         68.2         69.1         76.5         76.5         75.5           Rapides         66.4         62.7         68.0         70.3         74.7         74.8           Red River         59.9         71.2         69.0         74.5         58.0         64.1           Richland         65.8         70.3         63.9         68.5         75.7         72.8           Sabine         56.0         66.2         64.4         72.9         69.8         73.7           St. Bernard         76.1         82.0         85.5         86.7         88.5         89.9           St. Charles         71.8         78.0         80.7         80.0         84.9         82.6           St. Helena         70.9         81.7         73.8         68.4         71.6         86.9           St. James         55.7         63.0         65.2         65.5         68.2         63.3           St. John         57.5         64.9         64.7         62.9         72.1         65.           St. Landry         61.2         54.5							
Pointe Coupee         68.9         68.2         69.1         76.5         76.5         75.9           Rapides         66.4         62.7         68.0         70.3         74.7         74.3           Red River         59.9         71.2         69.0         74.5         58.0         64.           Richland         65.8         70.3         63.9         68.5         75.7         72.3           Sabine         56.0         66.2         64.4         72.9         69.8         73.           St. Bernard         76.1         82.0         85.5         86.7         88.5         89.9           St. Charles         71.8         78.0         80.7         80.0         84.9         82.6           St. Helena         70.9         81.7         73.8         68.4         71.6         86.9           St. James         55.7         63.0         65.2         65.5         68.2         63.3           St. James         55.7         63.0         65.2         65.5         68.2         63.3           St. James         55.7         63.0         65.2         65.5         68.2         63.3           St. Martin         71.2         65.9							
Rapides         66.4         62.7         68.0         70.3         74.7         74.8           Red River         59.9         71.2         69.0         74.5         58.0         64.           Richland         65.8         70.3         63.9         68.5         75.7         72.3           Sabine         56.0         66.2         64.4         72.9         69.8         73.           St. Bernard         76.1         82.0         85.5         86.7         88.5         89.9           St. Charles         71.8         78.0         80.7         80.0         84.9         82.6           St. Charles         71.8         78.0         80.7         80.0         84.9         82.6           St. Helena         70.9         81.7         73.8         68.4         71.6         86.9           St. James         55.7         63.0         65.2         65.5         68.2         63.3           St. James         55.7         63.0         64.7         62.9         72.1         65.           St. Landry         61.2         54.5         57.4         62.0         66.1         63.6           St. Martin         71.2         65.9							
Red River         59.9         71.2         69.0         74.5         58.0         64.           Richland         65.8         70.3         63.9         68.5         75.7         72.8           Sabine         56.0         66.2         64.4         72.9         69.8         73.           St. Bernard         76.1         82.0         85.5         86.7         88.5         89.9           St. Dernard         76.1         82.0         85.5         86.7         88.5         89.9           St. Dernard         76.1         82.0         85.5         86.7         88.5         89.9           St. Charles         71.8         78.0         80.7         80.0         84.9         82.6           St. Charles         71.8         78.0         80.7         80.0         84.9         82.6           St. James         55.7         63.0         65.2         65.5         68.2         63.3           St. James         55.7         63.0         65.2         65.5         68.2         63.3           St. Landry         61.2         54.5         57.4         62.0         66.1         63.6           St. Martin         71.2         65.9							74.5
Richland         65.8         70.3         63.9         68.5         75.7         72.8           Sabine         56.0         66.2         64.4         72.9         69.8         73.           St. Bernard         76.1         82.0         85.5         86.7         88.5         89.9           St. Bernard         76.1         82.0         85.5         86.7         88.5         89.9           St. Charles         71.8         78.0         80.7         80.0         84.9         82.6           St. Helena         70.9         81.7         73.8         68.4         71.6         86.9           St. James         55.7         63.0         65.2         65.5         68.2         63.3           St. James         55.7         63.0         65.2         65.5         68.2         63.3           St. John         57.5         64.9         64.7         62.9         72.1         65.5           St. Landry         61.2         54.5         57.4         62.0         66.1         63.6           St. Martin         71.2         65.9         70.6         70.2         70.8         73.2           St. Marty         74.1         75.1							64.7
Sabine         56.0         66.2         64.4         72.9         69.8         73.           St. Bernard         76.1         82.0         85.5         86.7         88.5         89.9           St. Charles         71.8         78.0         80.7         80.0         84.9         82.6           St. Helena         70.9         81.7         73.8         68.4         71.6         86.9           St. James         55.7         63.0         65.2         65.5         68.2         63.9           St. John         57.5         64.9         64.7         62.9         72.1         65.5           St. Landry         61.2         54.5         57.4         62.0         66.1         63.6           St. Martin         71.2         65.9         70.6         70.2         70.8         73.2           St. Mary         74.1         75.1         77.3         76.9         79.0         75.7           St. Tammany         82.4         84.5         85.8         87.3         86.0         85.8           Tangipahoa         74.6         79.1         72.8         78.8         79.8         87.3           Union         55.5         56.3							
St. Bernard         76.1         82.0         85.5         86.7         88.5         89.9           St. Charles         71.8         78.0         80.7         80.0         84.9         82.6           St. Helena         70.9         81.7         73.8         68.4         71.6         86.9           St. James         55.7         63.0         65.2         65.5         68.2         63.3           St. John         57.5         64.9         64.7         62.9         72.1         65.           St. Landry         61.2         54.5         57.4         62.0         66.1         63.6           St. Martin         71.2         65.9         70.6         70.2         70.8         73.2           St. Mary         74.1         75.1         77.3         76.9         79.0         75.7           St. Tammany         82.4         84.5         85.8         87.3         86.0         85.8           Tangipahoa         74.6         79.1         72.8         78.8         79.8         87.4           Tensas         68.7         71.1         72.2         67.6         60.0         60.           Terrebonne         72.8         70.2							
St. Charles       71.8       78.0       80.7       80.0       84.9       82.6         St. Helena       70.9       81.7       73.8       68.4       71.6       86.9         St. James       55.7       63.0       65.2       65.5       68.2       63.3         St. John       57.5       64.9       64.7       62.9       72.1       65.         St. Landry       61.2       54.5       57.4       62.0       66.1       63.6         St. Martin       71.2       65.9       70.6       70.2       70.8       73.2         St. Mary       74.1       75.1       77.3       76.9       79.0       75.         St. Tammany       82.4       84.5       85.8       87.3       86.0       85.8         Tangipahoa       74.6       79.1       72.8       78.8       79.8       87.5         Tensas       68.7       71.1       72.2       67.6       60.0       60.0         Terrebonne       72.8       70.2       71.0       75.9       76.1       73.4         Union       55.5       56.3       59.7       66.1       63.1       66.7         Vermilion       74.4       71.6							
St. Helena       70.9       81.7       73.8       68.4       71.6       86.9         St. James       55.7       63.0       65.2       65.5       68.2       63.3         St. John       57.5       64.9       64.7       62.9       72.1       65.7         St. Landry       61.2       54.5       57.4       62.0       66.1       63.6         St. Martin       71.2       65.9       70.6       70.2       70.8       73.2         St. Mary       74.1       75.1       77.3       76.9       79.0       75.7         St. Tammany       82.4       84.5       85.8       87.3       86.0       85.8         Tangipahoa       74.6       79.1       72.8       78.8       79.8       87.9         Tensas       68.7       71.1       72.2       67.6       60.0       60.0         Terrebonne       72.8       70.2       71.0       75.9       76.1       73.4         Union       55.5       56.3       59.7       66.1       63.1       66.7         Vermilion       74.4       71.6       76.7       77.1       81.0       84.0         Vernon       70.5       68.6 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
St. James       55.7       63.0       65.2       65.5       68.2       63.3         St. John       57.5       64.9       64.7       62.9       72.1       65.3         St. Landry       61.2       54.5       57.4       62.0       66.1       63.6         St. Martin       71.2       65.9       70.6       70.2       70.8       73.2         St. Mary       74.1       75.1       77.3       76.9       79.0       75.7         St. Tammany       82.4       84.5       85.8       87.3       86.0       85.8         Tangipahoa       74.6       79.1       72.8       78.8       79.8       87.9         Tensas       68.7       71.1       72.2       67.6       60.0       60.7         Terrebonne       72.8       70.2       71.0       75.9       76.1       73.4         Union       55.5       56.3       59.7       66.1       63.1       66.7         Vermilion       74.4       71.6       76.7       77.1       81.0       84.0         Vermon       70.5       68.6       75.7       76.8       76.9       77.         West Baton Rouge       71.7       71							
St. John         57.5         64.9         64.7         62.9         72.1         65.7           St. Landry         61.2         54.5         57.4         62.0         66.1         63.6           St. Martin         71.2         65.9         70.6         70.2         70.8         73.2           St. Mary         74.1         75.1         77.3         76.9         79.0         75.7           St. Tammany         82.4         84.5         85.8         87.3         86.0         85.8           Tangipahoa         74.6         79.1         72.8         78.8         79.8         87.8           Tensas         68.7         71.1         72.2         67.6         60.0         60.7           Terrebonne         72.8         70.2         71.0         75.9         76.1         73.4           Union         55.5         56.3         59.7         66.1         63.1         66.7           Vermilion         74.4         71.6         76.7         77.1         81.0         84.0           Vernon         70.5         68.6         75.7         76.8         76.9         77.           Washington         43.5         57.4							
St. Landry         61.2         54.5         57.4         62.0         66.1         63.6           St. Martin         71.2         65.9         70.6         70.2         70.8         73.2           St. Mary         74.1         75.1         77.3         76.9         79.0         75.7           St. Tammany         82.4         84.5         85.8         87.3         86.0         85.8           Tangipahoa         74.6         79.1         72.8         78.8         79.8         87.9           Tensas         68.7         71.1         72.2         67.6         60.0         60.1           Terrebonne         72.8         70.2         71.0         75.9         76.1         73.4           Union         55.5         56.3         59.7         66.1         63.1         66.           Vermilion         74.4         71.6         76.7         77.1         81.0         84.0           Vernon         70.5         68.6         75.7         76.8         76.9         77.           Washington         43.5         57.4         62.0         65.6         78.4         74.           West Baton Rouge         71.7         71.7							
St. Martin         71.2         65.9         70.6         70.2         70.8         73.2           St. Mary         74.1         75.1         77.3         76.9         79.0         75.7           St. Tammany         82.4         84.5         85.8         87.3         86.0         85.8           Tangipahoa         74.6         79.1         72.8         78.8         79.8         87.9           Tensas         68.7         71.1         72.2         67.6         60.0         60.0           Terrebonne         72.8         70.2         71.0         75.9         76.1         73.4           Union         55.5         56.3         59.7         66.1         63.1         66.7           Vermilion         74.4         71.6         76.7         77.1         81.0         84.6           Vernon         70.5         68.6         75.7         76.8         76.9         77.7           Washington         43.5         57.4         62.0         65.6         78.4         74.7           West Baton Rouge         71.7         71.7         71.0         79.3         74.9         78.6           West Carroll         62.6         59.9							
St. Mary       74.1       75.1       77.3       76.9       79.0       75.7         St. Tammany       82.4       84.5       85.8       87.3       86.0       85.8         Tangipahoa       74.6       79.1       72.8       78.8       79.8       87.9         Tensas       68.7       71.1       72.2       67.6       60.0       60.7         Terrebonne       72.8       70.2       71.0       75.9       76.1       73.4         Union       55.5       56.3       59.7       66.1       63.1       66.7         Vermilion       74.4       71.6       76.7       77.1       81.0       84.6         Vernon       70.5       68.6       75.7       76.8       76.9       77.7         Washington       43.5       57.4       62.0       65.6       78.4       74.         Webster       60.9       72.5       69.7       72.6       76.9       68.9         West Baton Rouge       71.7       71.7       71.0       79.3       74.9       78.6         West Carroll       62.6       59.9       64.9       64.4       67.9       58.6	·						
St. Tammany       82.4       84.5       85.8       87.3       86.0       85.8         Tangipahoa       74.6       79.1       72.8       78.8       79.8       87.9         Tensas       68.7       71.1       72.2       67.6       60.0       60.1         Terrebonne       72.8       70.2       71.0       75.9       76.1       73.4         Union       55.5       56.3       59.7       66.1       63.1       66.1         Vermilion       74.4       71.6       76.7       77.1       81.0       84.0         Vernon       70.5       68.6       75.7       76.8       76.9       77.1         Washington       43.5       57.4       62.0       65.6       78.4       74.         Webster       60.9       72.5       69.7       72.6       76.9       68.9         West Baton Rouge       71.7       71.7       71.0       79.3       74.9       78.6         West Carroll       62.6       59.9       64.9       64.4       67.9       58.6							
Tangipahoa         74.6         79.1         72.8         78.8         79.8         87.8           Tensas         68.7         71.1         72.2         67.6         60.0         60.7           Terrebonne         72.8         70.2         71.0         75.9         76.1         73.4           Union         55.5         56.3         59.7         66.1         63.1         66.1           Vermilion         74.4         71.6         76.7         77.1         81.0         84.0           Vernon         70.5         68.6         75.7         76.8         76.9         77.           Washington         43.5         57.4         62.0         65.6         78.4         74.           Webster         60.9         72.5         69.7         72.6         76.9         68.9           West Baton Rouge         71.7         71.7         71.0         79.3         74.9         78.6           West Carroll         62.6         59.9         64.9         64.4         67.9         58.6							
Tensas         68.7         71.1         72.2         67.6         60.0         60.1           Terrebonne         72.8         70.2         71.0         75.9         76.1         73.4           Union         55.5         56.3         59.7         66.1         63.1         66.1           Vermilion         74.4         71.6         76.7         77.1         81.0         84.0           Vernon         70.5         68.6         75.7         76.8         76.9         77.7           Washington         43.5         57.4         62.0         65.6         78.4         74.7           Webster         60.9         72.5         69.7         72.6         76.9         68.9           West Baton Rouge         71.7         71.7         71.0         79.3         74.9         78.6           West Carroll         62.6         59.9         64.9         64.4         67.9         58.6							
Terrebonne         72.8         70.2         71.0         75.9         76.1         73.4           Union         55.5         56.3         59.7         66.1         63.1         66.7           Vermilion         74.4         71.6         76.7         77.1         81.0         84.6           Vernon         70.5         68.6         75.7         76.8         76.9         77.7           Washington         43.5         57.4         62.0         65.6         78.4         74.           Webster         60.9         72.5         69.7         72.6         76.9         68.9           West Baton Rouge         71.7         71.7         71.0         79.3         74.9         78.6           West Carroll         62.6         59.9         64.9         64.4         67.9         58.6							
Union         55.5         56.3         59.7         66.1         63.1         66.7           Vermilion         74.4         71.6         76.7         77.1         81.0         84.0           Vernon         70.5         68.6         75.7         76.8         76.9         77.7           Washington         43.5         57.4         62.0         65.6         78.4         74.7           Webster         60.9         72.5         69.7         72.6         76.9         68.9           West Baton Rouge         71.7         71.7         71.0         79.3         74.9         78.0           West Carroll         62.6         59.9         64.9         64.4         67.9         58.0							
Vermilion         74.4         71.6         76.7         77.1         81.0         84.0           Vernon         70.5         68.6         75.7         76.8         76.9         77.7           Washington         43.5         57.4         62.0         65.6         78.4         74.7           Webster         60.9         72.5         69.7         72.6         76.9         68.9           West Baton Rouge         71.7         71.7         71.0         79.3         74.9         78.0           West Carroll         62.6         59.9         64.9         64.4         67.9         58.0							
Vernon         70.5         68.6         75.7         76.8         76.9         77.7           Washington         43.5         57.4         62.0         65.6         78.4         74.7           Webster         60.9         72.5         69.7         72.6         76.9         68.9           West Baton Rouge         71.7         71.7         71.0         79.3         74.9         78.6           West Carroll         62.6         59.9         64.9         64.4         67.9         58.6							
Washington       43.5       57.4       62.0       65.6       78.4       74.7         Webster       60.9       72.5       69.7       72.6       76.9       68.9         West Baton Rouge       71.7       71.7       71.0       79.3       74.9       78.6         West Carroll       62.6       59.9       64.9       64.4       67.9       58.6							
Webster       60.9       72.5       69.7       72.6       76.9       68.9         West Baton Rouge       71.7       71.7       71.0       79.3       74.9       78.6         West Carroll       62.6       59.9       64.9       64.4       67.9       58.6							
West Baton Rouge         71.7         71.7         71.0         79.3         74.9         78.6           West Carroll         62.6         59.9         64.9         64.4         67.9         58.6							
West Carroll 62.6 59.9 64.9 64.4 67.9 58.6							
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\*According to modified Kessner index

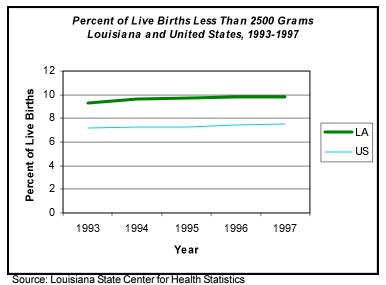
Source: Louisiana State Center for Health Statistics



### **Low Birth Weight**

A low birth weight infant is defined as an infant weighing less than 2500 grams (5 pounds, 8 ounces) at birth. Low birth weight is a major cause of infant mortality, with more than three-quarters of infant deaths caused by babies being born too small or too early.<sup>4</sup> Low birth weight contributes significantly to later childhood handicap as well. Low birth weight infants are more likely to have brain damage, lung and liver disease, subnormal growth, developmental problems, and other adverse health conditions. The effects of low birth weight follow infants throughout life, as they are more likely to have mild learning disorders, attention disorders, and developmental impairments.<sup>5</sup> A higher proportion of low birth weight infants also go on to be enrolled in special education classes than their normal birth weight counterparts.<sup>6</sup>

In 1997, 6,727 of the infants born to Louisiana residents weighed less than 2500 grams (5lbs 8oz). This represents 10.2% of the live births that year, as compared with 7.5% of the babies born in the United States who were low birth weight. In recent years, neither Louisiana nor the nation has shown any significant reduction in the percentage of infants born with low birth weight.



National Center for Health Statistics (preliminary 1997 data)

In the table below, percentages are furnished to provide an idea of Louisiana's standing among the neighboring states in terms of low birth weight infants. (As previously noted, preliminary NCHS 1997 percentages are used for cross-state comparisons.) In 1997, Louisiana had the highest percentage of low birth weight babies in the nation.

Percent of Live Births Less Than 2500 Grams Louisiana, Neighboring States, and United States, 1997					
State	Percent of Live Births	National Ranking			
Alabama	9.3	3			
Arkansas	8.3	12			
Louisiana	10.1	1			
Mississippi	10.1	1			
Texas	7.3	27			
United States	7.5	-			

Source: National Center for Health Statistics (preliminary 1997 data)

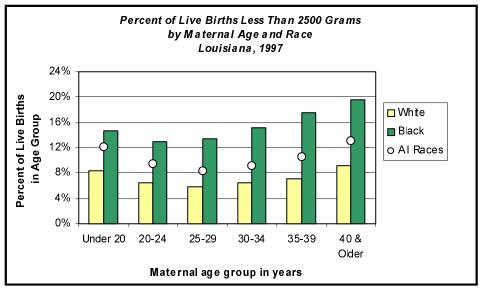
<sup>&</sup>lt;sup>4</sup>Paneth NS. (1995) "The Problem of Low Birth Weight." In The Future of Children, Low Birth Weight (19-34).

<sup>&</sup>lt;sup>5</sup>Institute of Medicine. (1985). "The Significance of Low Birthweight." In: *Preventing Low Birthweight*. (pp. 21-45). Washington, DC: National Academy Press.

<sup>&</sup>lt;sup>6</sup> Hack M, Klein NK, Taylor HG. "Long-Term Developmental Outcomes of Low Birth Weight Infants." *The Future of Children, Low Birth Weight* 1995;5:19-34.



African-Americans gave birth to infants of low birth weight more than twice as frequently as white women did, at 14.6% compared with 7.0% of live births. This discrepancy held true for all age groups. Examination of births by age groups found mothers 40 and older had the highest percentage of low birth weight babies (13.2% of live births), as well as the greatest discrepancy between white mothers (9.2% of births were low weight) and African-American mothers (19.6% of births were low weight).

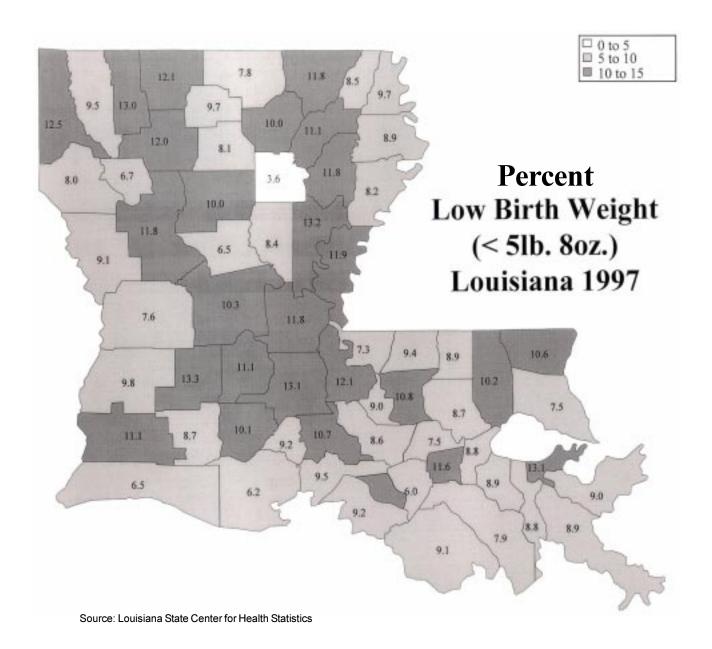


Source: Louisiana State Center for Health Statistics

Allen parish had the highest percentage of low birth weight babies at 13.3% of live births, and Caldwell parish had the lowest at 3.6% of live births. The map on the following page shows the percent of live births that are low birth weight babies in each parish.

<sup>&</sup>lt;sup>7</sup> Ventura SJ, Martin JA, Curtin SC, Mathews TJ. "Report of Final Natality Statistics, 1995." *Monthly Vital Statistics Report*; vol 45 no 11, supp. Hyattsville, Maryland: National Center for Health Statistics. 1997.





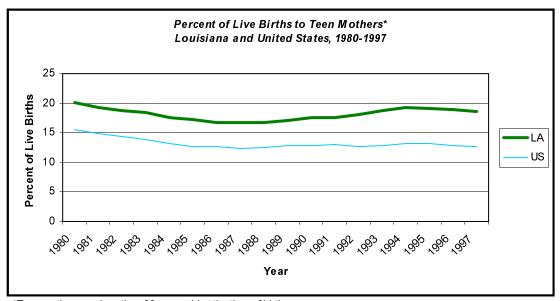
Infants weighing less than 1500 grams (3 lbs 5oz) at birth are considered to be very low birth weight and are at much greater risk of mortality and long-term disability. The risk of early death for a very low birth weight infant is about 65 times that of infants who weigh at least 1500 grams. In 1997, 2.1% of infants born to Louisiana residents weighed less than 1500 grams, as compared with 1.4% of infants born to United States residents. As with infants weighing less than 2500 grams, there were demographic differences in the mothers giving births to very low birth weight infants. African-American mothers gave birth to very low birth weight infants three times as frequently as white mothers did, at 3.4% compared with 1.2% of live births. Infants born to young mothers and older mothers of all races were also more frequently very low birth weight. Of all infants born to mothers under the age of 20, 2.3% were very low birth weight, and 2.2% of infants born to mothers over the age of 40 weighed less than 1500 grams.



#### **Teen Births**

Despite an overall decrease in teen birth rates over the last two decades, teenage pregnancy continues to be a problem for the nation. Teen mothers are less likely to receive adequate prenatal care and are more likely to give birth to low birth weight infants.<sup>8</sup> These infants are also more likely to be hospitalized and go on to have childhood health problems. National Statistics report that most (76%) births to teens occur outside of marriage, and 25% of teenage mothers go on to have more children within the next two years. These factors, combined with the fact that teenage mothers are less likely to finish high school, contribute to the high proportion of women living in poverty who first gave birth during adolescence. In 1993, of the 3.8 million mothers aged 15-44 who received welfare or Aid to Families with Dependent Children (AFDC), 55% first became mothers as teenagers.<sup>11</sup> In fiscal year 1995, Louisiana spent over \$875 million on programs that support families begun by teens (in the form of AFDC, Food Stamps, WIC, and Medicaid). In contrast, Louisiana spent only \$5.7 million on programs designed to prevent teenage pregnancy.<sup>12</sup>

In 1997, there were 12,225 live births to Louisiana residents under the age of 20. This number comprised 18.6% of the total live births to Louisiana residents in 1997, as compared with 12.8% at the national level.



\*Teen mothers are less than 20 years old at the time of birth Source: Louisiana State Center for Health Statistics, National Center for Health Statistics (preliminary 1997 data)

<sup>&</sup>lt;sup>8</sup> Lewis CT, Mathews TJ, Heuser RL. *Prenatal Care in the United States, 1980–94*. National Center for Health Statistics. Vital Health Stat 21(54). 1996.

<sup>&</sup>lt;sup>9</sup> Ventura SJ, Martin JA, Mathews TJ, Clarke SC. "Advance report of Final Natality Statistics, 1994." *Monthly Vital Statistics report*; vol 44 no 11, supp. Hyattsville, Maryland: National Center for Health Statistics. 1996.

<sup>&</sup>lt;sup>10</sup> The Alan Guttmacher Institute. Sex and America's Teenagers. 1994.

<sup>&</sup>lt;sup>11</sup> The Alan Guttmacher Institute. Issues in Brief. February 1995.

<sup>&</sup>lt;sup>12</sup> Kreutzer, Tracy A. *Expenditures and Investments: Adolescent Pregnancy in the South.* Volume II. (1997), Southern Regional Project on Infant Mortality. Washington, DC.

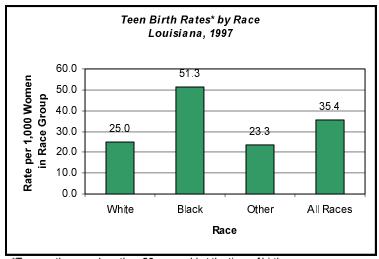


In the table below, percentages are furnished to provide an idea of Louisiana's standing among the neighboring states in terms of births to teenagers. (As noted previously, preliminary NCHS 1997 numbers are used to facilitate cross-state comparisons.) Louisiana has consistently ranked near the top of the states in terms of percentage of live births to teens, and 1997 was no exception. Louisiana had the third highest percentage of live births to teens in the nation, one of the four southern states at the top of the list.

Percent of Live Births to Teens* Louisiana, Neighboring States, and United States, 1997										
State Birth Rate National Ranking										
Alabama	17.6	4								
Arkansas	19.2	2								
Louisiana	18.6	3								
Mississippi	20.7	1								
Texas	16.1	10								
United States	12.8	-								

<sup>\*</sup>Teen mothers are less than 20 years old at the time of birth Source: National Center for Health Statistics (preliminary 1997 data)

To make comparisons of births among teens in different race groups meaningful, teen birth rates have been calculated by relating the number of teen births in each race group to the total number of teen women in the same race group. This method of calculating teen birth rates controls for differences in the proportion of women in the race groups, and is the method used by the National Center for Health Statistics (NCHS).<sup>13</sup> In Louisiana, the birth rate for African-American teenagers in 1997 was more than twice that of white teenagers, at 51.3 compared with 25.0 births per 1,000 women in the respective age and race groups.



\*Teen mothers are less than 20 years old at the time of birth Source: Louisiana State Center for Health Statistics

<sup>&</sup>lt;sup>13</sup> Clarke SC and Ventura SL. *Birth and Fertility Rates for States: United States, 1990.* National Center for Health Statistics. Vital Health Stat 21(52). 1994.



There is considerable variation in teenage birth rates by parish. Acadia parish has the highest rate at 152.5 births per 1,000 women aged 15-19. This is over four times the rate of Lincoln, the parish with the lowest rate at 33.2 births per 1,000 women aged 15-19. The following map shows teenage birth rates in Louisiana by parish.





	Perd	ento	f Tota	I Live		hs to T			5-19	Years	of Ag	е			
Parish		15-1	7 Yea	rs	LO	ı is ia ii e		9 Yea	rs			15-1	9 Yea	rs *	
	93	94	95	96	97	93	94	95	96	97	93	94	95	96	97
Louisiana	7	8	7	7	7	11	11	11	11	11	18	19	19	18	18
Acadia	7	8	8	7	9	13	13	12	13	13	20	21	21	20	22
Allen	8	9	8	6	5	13	14	13	11	15	21	23	21	17	21
Ascension	6	6	5	6	5	7	8	10	9	9	13	15	15	15	13
Assumption	6	10	6	6	9	8	11	12	14	14	14	21	18	20	23
Avoyelles	8	9	7	7	10	12	13	13	11	13	20	22	20	19	22
Beauregard Bienville	6 9	7 7	<u>4</u> 5	5 10	9 10	15 11	11 10	13 14	12 10	12 14	22	19 17	17 19	18 21	20 24
Bossier	7	7	<u>5</u>	6	6	8	10	10	10	11	15	16	16	16	17
Caddo	8	8	8	8	7	11	11	12	11	12	20	20	19	18	19
Calcasieu	8	7	7	6	7	11	11	12	13	12	19	18	19	19	19
Caldwell	7	4	11	10	6	14	11	11	12	16	21	16	22	22	20
Cameron	6	6	5	9	12	8	9	9	21	10	14	14	14	30	22
C atah o u la	9	9	11	6	8	17	13	14	20	18	26	22	2.5	26	26
Claiborne	12	10	10	13	9	13	14	8	9	11	25	24	19	22	20
Concordia	14	16	14	10	11	14	16	18	20	16	28	33	32	30	26
DeSoto	9	7	9	8	7	10	12	14	13	14	19	19	24	21	20
E. Baton Rouge	6	6	6	6	6	8	9	9	10	9	14	15	14	16	14
E. CarroⅡ	15	12	14	7	17	16	16	13	8	6	31	28	27	16	22
E. Feliciana	7	9	5	9	8	11	11	11	24	16	18	19	16	33	24
Evangeline	8	10	8	10	11	15	9	14	14	12	23	19	23	24	22
Franklin	9	11	9	8	7	19	15	14	16	16	27	25	23	24	22
Grant	9	6	6	9	5	15	14	16	14	15	25	20	22	23	20
lberia	10	8	9	10	8	10	11	15	11	12	20	19	24	21	20
berville	6	6	7	8	7	14	10	11	13	11	20	16	18	21	16
Jackson	6	10	7	8 7	7	11	14	14	12 12	9	16	25	22	20	15
Jefferson Jefferson Davis	6 7	<u>6</u> 8	<u>5</u> 8	6	6 9	8	9 12	10			14 17	15	15		15
Jefferson Davis Lafayette	5	<u>8</u>	<u>8</u>	5	5	10 7	8	13 10	9	1 2 9	13	20 13	21 15	15 15	21 14
Lafourche	6	6	8	6	7	10	10	10	11	11	16	15	18	17	17
LaSalle	11	8	9	<u></u>	8	11	13	10	12	10	23	20	19	19	18
Lincoln	6	8	8	7	7	12	10	9	7	13	18	18	17	14	19
Livingston	6	5	6	5	6	12	11	11	11	10	18	16	18	16	17
Madison	12	12	14	10	11	16	14	13	17	13	28	27	27	27	21
Morehouse	13	14	15	10	13	18	16	15	13	15	31	30	3 0	24	27
Natchitoches	10	10	9	8	9	13	14	15	14	12	22	23	24	21	21
Orleans	10	10	10	9	8	13	13	12	12	12	23	23	22	20	20
Ouachita	9	10	7	8	7	13	13	12	13	11	21	23	19	21	17
Plaquemines	7	10	6	10	8	13	9	11	12	12	20	19	17	21	19
Pointe Coupee	8	7	7	10	8	10	13	12	10	14	17	20	19	19	21
Rapides	8	8	7	7	9	12	12	14	14	12	20	20	21	21	21
Red River	6	10	6	9	11	10	17	13	15	9	17	27	19	24	18
Richland	13	13	14	10	12	14	16	15	14	12	27	29	29	23	23
Sabine	10	9	8	9	6	14	13	16	13	13	23	23	24	22	19
St Bernard	6	5	6	6	4	10	10	10	11	10	15	15	15	17	14
St Charles	5	5	7	4	6	9	9	6	9	10	14	14	13	13	15
St. Helena	6	8	8	10	7	9	13	15	17	14	14	20	23	27	20
St. James	7	6	8	7	5	11	10	9	8	9	17	16	18	15	14
St. John St. Landry	7 8	<u>7</u> 9	6 7	<u>6</u> 8	7 9	<u>8</u> 11	9 12	11 12	12 13	12 12	15 19	16 21	17 19	18 22	18 21
St. Martin	6	8	6	8	8	9	12	12	12	11	15	20	18	20	19
St. Marv	8	8	9	9	8	9	13	14	14	14	17	21	23	23	22
St. Tammany	5	5	<u>9</u> 5	<u>9</u> 5	5	7	8	8	6	8	12	12	13	11	12
Tangipahoa	10	9	8	9	10	12	14	14	14	14	23	24	22	23	24
Tensas	8	13	11	12	19	18	16	19	17	14	26	28	31	30	32
Terrebonne	6	7	7	8	9	10	11	11	11	13	16	18	18	20	21
	11	13	8	8	10	12	10	13	15	9	23	23	22	22	19
Union	6	6	7	5	6	11	12	12	12	11	17	18	19	18	16
Union Vermilion	U			4	4	11	11	12	12	13	16	15	16	16	17
	4	4	4												
Vermilion		<u>4</u> 12	11	7	9	12	12	19	11	17	20	24	30	18	25
Vermilion Vernon	4					1 2 1 1	1 2 1 3	1 9 1 4	11 11	17 14	20	24	3 0 2 2		25 23
Vermilion Vernon Washington	4 8	12	11	7	9									18	
Vermilion Vernon W ashington W ebster	4 8 9	1 2 1 0	11 8 4 7	7 6	9 10	11	13	14	11	14	20 16 18	23 13 16	22	18 17	23
Vermilion Vernon Washington Webster W. Baton Rouge	4 8 9 5	1 2 1 0 7	1 1 8 4	7 6 10	9 10 8	11 11	13 7	1 4 1 2	11 15	14 12	20 16	23 13	2 2 1 6	18 17 25	23 19

\*May not equal sum of "15-17 Years" and "18-19 Years" due to rounding



Bir	ths by Parish, Race		lected Characteris	Births by Parish, Race of Mother, and Selected Characteristics Louisiana, 1997													
		Percent with	Percent Low	% Births to													
Parish	Total Births	Adequate	Weight Births	Mothers Under													
	250.47	Prenatal Care*	(<5.8 lbs.)	Age 20 Years													
Louisiana	65947	75.4	9.8	18.5													
White	37438	84.3	6.7	13.4													
Black	27115	63.3	14.1	26.0													
Other	1394	74.4	7.1	11.0													
Acadia	972	59.6	8.8	22.2													
White	711	68.5	6.1	18.8													
Black	258	34.9	15.8	31.8													
Other	3	66.7	0.0	0.0													
Allen	323	67.2	10.5	20.7													
White	251	70.1	8.9	17.9													
Black	66	53.1	16.5	31.8													
Other	6	100.0	5.7	16.7													
Ascension	1166	83.0	8.5	13.6													
White	863	88.1	6.8	10.8													
Black	300	68.9	13.1	22.0													
Other	3	33.3	0.0	0.0													
Assumption	298	82.7	8.4	23.2													
White	184	83.5	5.1	16.8													
Black	114	81.4	12.7	33.3													
Other	0	0.0	0.0	0.0													
Avoyelles	585	69.7	9.9	22.7													
White	369	80.0	7.8	19.2													
Black	213	51.9	13.8	29.1													
Other	3	66.7	6.3	0.0													
Beauregard	479	70.7	7.8	20.0													
White	400	77.0	7.2	18.5													
Black	71	39.1	11.5	31.0													
Other	8	37.5	5.7	0.0													
Bienville	217	64.5	11.6	24.4													
White	120	81.2	8.5	20.8													
Black	96	44.1	14.9	29.2													
Other	1	0.0	0.0	0.0													
Bossier	1382	76.3	8.8	17.3													
White	968	84.2	6.9	13.6													
Black	381	55.4	13.8	27.0													
Other	33	84.9	6.1	12.1													
Caddo	3690	68.0	11.6	19.5													
White	1592	85.6	7.1	11.3													
Black	2048	54.2	15.5	26.1													
Other	50	71.4	10.4	10.0													
Calcasieu	2777	81.6	9.7	18.9													
White	1913	86.3	7.3	15.0													
Black	836	70.9	15.1	28.5													
Other	28	75.0	12.2	7.1													
Caldwell	138	79.0	6.3	21.7													
White	107	81.3	4.9	23.4													
Black	30	70.0	12.1	16.7													
Other	1	100.0	0.0	0.0													

<sup>\*</sup>According to modified Kessner index



Birt	hs by Parish, Race	of Mother, and Se Louisiana, 1997	lected Characteris	tics
Parish	Total Births	Percent with Adequate	Percent Low Weight Births	% Births to Mothers Under
		Prenatal Care*	(<5.8 lbs.)	Age 20 Years
Cameron	107	84.0	9.5	22.4
White	100	85.9	8.8	24.0
Black	6	50.0	21.2	0.0
Other	1	100.0	0.0	0.0
Catahoula	136	73.3	9.3	26.5
White	96	80.0	6.4	18.8
Black	40	57.5	14.3	45.0
Other	0	0.0	0.0	0.0
Claiborne	214	61.0	12.4	20.1
White	101	77.3	8.2	13.9
Black	111	46.0	15.2	26.1
Other	2	100.0	16.7	0.0
Concordia	328	65.7	10.2	26.8
White	154	84.2	6.4	18.8
Black	172	49.1	14.0	34.3
Other	2	50.0	0.0	0.0
DeSoto	349	68.1	10.7	20.9
White	186	77.4	6.8	14.0
Black	163	57.4	13.9	28.8
Other	0	0.0	0.0	0.0
E. Baton Rouge	6072	75.4	10.4	15.0
White	2870		6.1	
Black	2870 3045	90.0 61.8	15.0	7.5 22.7
Other	157	73.9	8.0	
E. Carroll	144	60.3	10.0	3.2 22.9
White	30	70.0	3.9	6.7
Black	114	57.7	11.9	27.2
Other	0	0.0	0.0	0.0
E. Feliciana	307	70.8	9.6	23.8
White	158	84.1	7.4	17.7
Black	147	57.5	12.1	30.6
Other	2	0.0	0.0	0.0
Evangeline	585	69.0	10.9	23.1
White	375	79.8	7.3	16.8
Black	208	49.5	16.9	34.6
Other	2	50.0	16.7	0.0
Franklin	288	70.3	9.3	22.6
White	156	82.6	5.7	17.9
Black	131	55.4	13.4	28.2
Other	1	100.0	0.0	0.0
Grant	262	79.5	8.3	20.2
White	230	83.3	7.8	20.0
Black	31	53.3	11.1	19.4
Other	1	0.0	0.0	100.0
Iberia	1225	61.1	9.4	20.3
White	684	74.6	6.7	15.2
Black	515	44.0	12.8	26.6
Other	26	42.3	9.6	30.8

<sup>\*</sup>According to modified Kessner index



Births by Parish, Race of Mother, and Selected Characteristics  Louisiana, 1997  Percent with Percent Low % Births to													
Parish	Total Births	Percent with Adequate	Percent Low Weight Births	% Births to Mothers Under									
		Prenatal Care*	(<5.8 lbs.)	Age 20 Years									
Iberville	444	78.1	10.8	17.6									
White	201	93.9	7.1	11.4									
Black	243	65.3	13.6	22.6									
Other	0	0.0	0.0	0.0									
Jackson	209	57.8	8.5	15.3									
White	138	68.2	6.4	10.9									
Black	70	37.1	12.6	24.3									
Other	1	100.0	0.0	0.0									
Jefferson	6327	83.6	8.4	15.1									
White	4008	89.4	6.6	11.5									
Black	1964	72.3	12.7	23.4									
Other	355	80.1	6.8	9.6									
Jefferson Davis	515	62.6	8.6	21.6									
White	401	68.4	7.0	19.2									
Black	106	41.0	13.7	31.1									
Other	8	62.5	11.8	12.5									
Lafayette	2871	80.3	9.0	14.1									
White	1959	86.6	6.1	9.8									
Black	864	66.4	15.1	24.1									
Other	48	75.0	9.4	8.3									
Lafourche	1181	78.2	8.4	17.5									
White	909	79.4	7.0	15.1									
Black	225	74.3	13.8	27.1									
Other	47	73.9	5.6	19.1									
LaSalle	190	71.1	8.0	18.4									
White	168	77.0	8.0	16.7									
Black	22	27.3	8.5	31.8									
Other	0	0.0	0.0	0.0									
Lincoln	534	49.2	9.6	19.7									
White	255	63.8	6.2	12.2									
Black	276	36.0	12.9	26.8									
Other	3	0.0	6.7	0.0									
Livingston	1330	85.2	8.4	16.7									
White	1232	86.6	7.6										
Black	91	65.6	17.1	20.9									
Other	7	85.7	5.3	14.3									
Madison	224	55.5	10.9	23.2									
White	55	83.3	6.3	16.4									
Black	169	46.4	12.6	25.4									
Other	0	0.0	0.0	0.0									
Morehouse	499	49.8	10.9	27.7									
White	220	64.8	6.3	18.6									
Black	279	37.7	14.6	34.8									
Other	0	0.0	0.0	0.0									
Natchitoches	593	68.9	9.6	21.2									
White	309	81.6	6.6										
Black	278	55.1	12.4	28.1									
Other	6	66.7	4.8	33.3									

<sup>\*</sup>According to modified Kessner index



Birt	ths by Parish, Race	of Mother, and Se Louisiana, 1997	lected Characteris	tics
		Percent with	Percent Low	% Births to
Parish	Total Births	Adequate	Weight Births	Mothers Under
		Prenatal Care*	(<5.8 lbs.)	Age 20 Years
Orleans	7734	74.6	12.3	20.4
White	1419	89.3	6.3	5.1
Black	6098	71.0	13.8	24.5
Other	217	81.4	6.1	4.6
Ouachita	2217	77.1	9.3	17.9
White	1191	87.4	5.8	10.9
Black	1014	64.8	13.4	26.2
Other	12	91.7	10.8	0.0
Plaquemines	425	74.8	8.4	19.5
White	272	82.0	6.9	15.4
Black	130	63.5	12.7	30.0
Other	23	52.2	2.8	8.7
Pointe Coupee	331	75.9	9.9	21.5
White	161	86.6	5.3	12.4
Black	170	65.9	14.8	30.0
Other	0	0.0	0.0	0.0
Rapides	1852	74.5	9.8	21.0
White	1085	83.1	7.0	15.4
Black	746	61.9	14.1	29.2
Other	21	76.2	7.8	14.3
Red River	134	64.7	11.1	20.1
White	67	88.1	7.8	13.4
Black	65	40.6	14.5	27.7
Other	2	50.0	0.0	0.0
Richland	324	72.8	12.2	24.1
White	166	81.5	7.2	13.9
Black	157	63.7	16.9	35.0
Other	1	100.0	0.0	0.0
Sabine	331	73.1	8.2	19.0
White	232	79.3	6.7	20.3
Black	85	55.3		15.3
Other	14	78.6	6.5	21.4
St. Bernard	884	89.9	8.0	13.7
White	784	92.1	7.0	13.3
Black	75	71.2	17.9	22.7
Other	25	76.0	9.8	0.0
St. Charles	716	82.6		15.5
White	489	87.6		10.8
Black	222	71.6		26.1
Other	5	80.0	6.5	0.0
St. Helena	101	86.9	9.8	20.8
White	48	89.4	7.2	16.7
Black	53	84.6	12.0	24.5
Other		0.0	20.0	0.0
St. James	303	63.3	10.8	14.2
White	132	73.3		3.8
Black	171	55.6		22.2
Other	0			0.0
Otrici	U	0.0	0.0	0.0

<sup>\*</sup>According to modified Kessner index



Bir	ths by Parish, Race		lected Characteris	tics
		Louisiana, 1997 Percent with	Percent Low	% Births to
Parish	Total Births			Mothers Under
Parisii	TOTAL DITTIS	Adequate Prenatal Care*	Weight Births	
St. John	674		(<5.8 lbs.)	<b>Age 20 Years</b> 18.5
		65.1	9.2	
White	321	78.0	6.8	11.5
Black	349	53.9	11.8	25.2
Other	4 4 4 4 4 4	0.0	6.9	0.0
St. Landry	1340	63.6	10.9	21.0
White	672	76.5	7.1	15.9
Black	664	50.8	14.8	26.1
Other	4	25.0	15.8	50.0
St. Martin	755	73.2	10.2	19.7
White	429	81.1	7.0	15.6
Black	316	62.5	14.3	25.6
Other	10	70.0	15.9	10.0
St. Mary	887	75.7	9.2	22.1
White	504	84.3	6.3	19.2
Black	364	64.0	13.8	26.6
Other	19	73.7	5.1	10.5
St. Tammany	2532	85.8	7.1	12.4
White	2144	88.5	6.1	9.9
Black	361	70.0	12.9	27.7
Other	27	77.8	5.7	7.4
Tangipahoa	1652	87.5	10.8	24.8
White	964	90.1	6.9	17.4
Black	678	83.9	16.3	35.3
Other	10	80.0	13.2	20.0
Tensas	85	60.7	9.1	32.9
White	30	93.3	4.4	16.7
Black	55	42.6	12.0	41.8
Other	0	0.0	0.0	0.0
Terrebonne	1701	73.4	8.6	21.8
White	1171	74.3	7.2	18.9
Black	405	74.6	13.5	26.4
Other	125	61.6	6.4	34.4
Union	306	66.7	10.4	19.6
White	207	74.2	7.8	17.4
Black	97	50.5	15.3	24.7
Other	2	50.0	20.0	0.0
Vermilion	710	84.0	7.8	16.5
White	542	88.1	5.9	16.1
Black	150	69.8	13.9	19.3
Other	18	77.8	9.7	5.6
Vernon	962	77.7	7.1	17.5
White	730	78.6	6.2	17.3
Black	187	74.2	10.5	19.8
Other	45	77.8	5.1	11.1
Washington	662	74.1	9.6	25.7
White	421	81.4	7.0	22.1
Black	240	61.3	13.8	
Other	1	0.0	0.0	0.0

<sup>\*</sup>According to modified Kessner index



Birt	Births by Parish, Race of Mother, and Selected Characteristics												
		Louisiana, 1997											
		Percent with	Percent Low	% Births to									
Parish	Total Births	Adequate	Weight Births	Mothers Under									
		Prenatal Care*	(<5.8 lbs.)	Age 20 Years									
Webster	555	68.9	11.0	23.4									
White	311	83.4	6.8	18.0									
Black	241	49.6	16.3	30.7									
Other	3	100.0	5.3	0.0									
W. Baton Rouge	344	78.6	9.0	20.1									
White	185	89.1	5.2	14.1									
Black	158	66.3	13.9	26.6									
Other	1	100.0	20.0	100.0									
W. Carroll	129	58.6	8.9	20.2									
White	96	65.6	8.6	20.8									
Black	33	37.5	9.7	18.2									
Other	0	0.0	0.0	0.0									
W. Feliciana	109	71.3	7.4	17.4									
White	59	83.1	2.6	3.4									
Black	50	57.1	12.5	34.0									
Other	0	0.0	0.0	0.0									
Winn	231	57.4	9.4	26.4									
White	133	68.7	5.7	20.3									
Black	98	41.3	15.3	34.7									
Other	0	0.0	0.0	0.0									

<sup>\*</sup>According to modified Kessner index

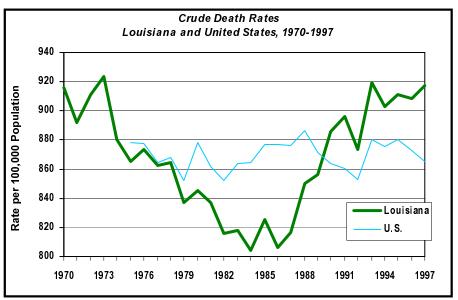


### C. DEATHS

## **Death Counts and Mortality Rates (Crude and Age-Adjusted)**

There were 39,917 deaths among Louisiana residents in 1997, representing a slight increase from 39,511 deaths in 1996. Of total deaths, there were approximately equal numbers of males (50.8%) and females (49.2%). In terms of race, 1997 deaths included 27,312 white, 12,405 African-American, and 200 other race deaths. On 16 death certificates, race was not recorded. Of total resident deaths, 19.0%, 47.5%, and 21.6% occurred among those aged 45-64 years, 65-84 years, and 85 years and older, respectively. Age information was not recorded in 28 deaths.

Crude death rates are useful for examining the overall mortality risk of an area or population group, since they utilize total population and do not account for differences in age distributions. In Louisiana, the crude death rate slightly increased from 908.2 per 100,000 population in 1996 to 917.3 in 1997. In comparison, the United States rate was 872.5 in 1996 and 864.9 in 1997. In Louisiana the crude death rate has been steadily increasing since the mid-1980s. In 1990 the crude death rate in Louisiana leapt beyond the United States rate and has maintained a wide margin ever since.



Sources: Louisiana State Center for Health Statistics National Center for Health Statistics (preliminary US 1997 data)

Crude (or unadjusted) death rates give us an estimate of the overall mortality for a population, because they measure deaths in the population as a whole. Crude rates, however, ignore idiosyncrasies in the composition of a population, such as the unusually large number of elderly people who live in parts of Florida. Population idiosyncrasies like this can cause an increase in the crude death rate because of the large number of people in the population who are at high risk of dying because of advancing age.

Adjusted rates (also called standardized rates) are derived from statistical procedures that adjust for differences in population composition, such as age, race, or gender, which can increase or decrease the likelihood of death in one or more of the populations being considered. Age is the most common factor for which adjustment is done, since it is the most significant characteristic related to death and disease.



Because age-adjusted death rates control for the variations in death rates among age groups, they make comparisons between age groups more meaningful. However, the age-adjusted mortality measure is not a true estimation of the death rate, as the crude mortality measure is, and it should not be used in comparisons with crude mortality rates. Differences seen in age-adjusted rates in two different populations may reflect an actual difference in death rates in the two populations, or may be due to other factors, such as race or gender, which were not taken into account when the adjustments for age were made.

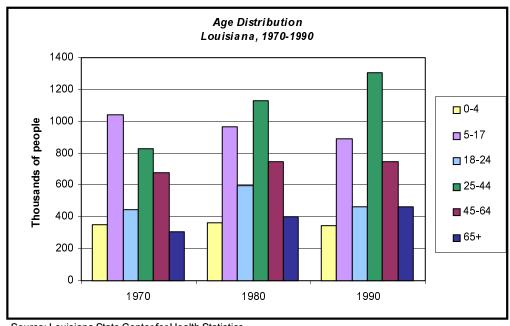
In the table below, crude and age-adjusted mortality rates are furnished to provide an idea of Louisiana's standing among the neighboring states. (Note: Although Louisiana's final 1997 rates are available and are reported in this document, National Center for Health Statistics preliminary 1997 data for all states have been used in the table below to permit comparison with surrounding states.) While all except Texas's rate are well above the national figure, Louisiana's crude mortality rate lies within the range of the neighboring state rates.

Mortality Rates* Louisiana, Neighboring States, and US, 1997											
State	Crude Rate	Age-Adjusted Rate									
Alabama	994.9	564.1									
Arkansas	1,103.90	572.1									
Louisiana	919.7	582.9									
Mississippi	1,007.20	609.7									
Texas	734.3	489.9									
United States	864.9	478.1									

\*Rates per 100,000

Source: National Center for Health Statistics (preliminary 1997 data)

The difference between Louisiana's crude death rate and the United States rate may be affected by the age distribution of the population. The graph below demonstrates how age distributions of populations change over time, and highlights the importance of using age-adjusted rates to make comparisons among populations.





The increase in the crude death rate seen in Louisiana since the mid-1980's is attributable at least in part to the age distribution of the population given in the previous figure. The large 5-17 year old population in 1970 has become older over time and constituted a large 25-44 year old population in 1990. Simply stated, the population of Louisiana in 1990 was older than the state population was in 1970.

As expected, the greatest proportion of deaths occurred in those of the 65-84 and the 85 and older age groups. Death rates for males exceeded those for females in the younger and middle age groups, and were therefore well below female rates in the eldest age group.

Number of Deaths by Age Group and Gender Louisiana, 1997															
	Age Group														
Gender	Under 5	Under 5 5-14 15-24 25-44 45-64 65-84 85+ Total													
Male	414	106	669	1,919	4,550	9,814	2,788	20,260							
Female	334	83	195	995	3,054	9,151	5,817	19,629							
Total	748	189	864	2,914	7,604	18,965	8,605	39,889							

<sup>\*</sup>Unknown ages excluded

				Numb	er of l	Deaths	by A	ge Gro	up and	d Paris	h					
						Lou	ıisiana	, 1997								
									Age	in Year	rs		1			
			Less													
Parish	Total	Rate*	than 1	1-4									65-74		85+	UNK
Louisiana	39,917	9.2	629	119	88	101	378	486	,			_		10,613	8,605	28
Acadia	603	10.5		3	1	5		12	12			76		168	118	0
Allen	231	9.6	0	1	0		1	0	5	7	16	27	54	65	53	0
Ascension	467	6.6	5	2	0	1	_	7	11	23	50	53	99	111	97	0
Assumption	196	8.6	2	0	0	0		3	4	9	18	20	43	49	45	0
Avoyelles	494	12.0	3	2	1	1	3	1	13	11	28	61	106	144	119	0
Beauregard	285	9.1	3	0	1	0	5	2	0	12	18	40	69	81	54	0
Bienville	229	14.6	2	1	0	0	2	0	4	10	11	28	36	68	67	0
Bossier	678	7.2	19	3	1	2	5	6	19	24	38	95	152	192	122	0
Caddo	2,620	10.7	47	9	3	9	21	20	56	106	171	270	500	722	685	1
Calcasieu	1,628	9.1	26	5	4	8	19	17	33	54	94	209	380	431	348	0
Caldwell	160	15.7	2	0	0	0	1	1	9	6	7	18	36	42	38	0
Cameron	70	7.6	0	0	0	0	0	2	0	2	6	14	14	18	14	0
Catahoula	120	11.1	4	0	0	0	2	2	1	3	6	14	32	36	20	0
Claiborne	207	12.1	4	0	0	0	0	1	5	3	9	23	34	61	67	0
Concordia	251	12.1	4	1	0	0	1	1	2	8	14	36	68	66	50	0
DeSoto	288	11.3	2	2	0	0	0	4	4	16	17	35	61	79	68	0
E. Baton Rouge	3,055	7.7	69	10	8	5	35	46	94	179	271	316	614	802	605	1
E. Carroll	101	10.9	1	2	1	0	2	3	3	4	7	11	24	21	21	1
E. Feliciana	216	10.4	2	2	1	0	1	4	4	14	12	26	53	51	45	1
Evangeline	360	10.5	6	2	1	1	4	1	9	15	16	48	77	93	87	0
Franklin	267	12.0	2	0	0	0	1	1	7	8	16	30	56	71	75	0
Grant	191	10.2	2	0	1	0	1	2	5	8	4	24	39	52	52	1
Iberia	665	9.3	15	4	3	0	6	4	28	34	47	80	135	169	140	0
Iberville	272	8.7	5	1	0	1	5	1	8	13	14	36	58	84	45	1



				Numb	er of l		by Ag	-	up and	l Paris	h					
								,		in Year	'S					
			Less													
Parish	Total	Rate*	than 1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54			75-84	85+	UNK
Jackson	200	12.9	0	0	0	1	2	3	1	9		23	35	66	52	0
Jefferson	3,900	8.6	52	13	8	8	22	42	104	203	283	426	861	1090	786	2
Jefferson Davis	344	10.9	5	0	0	0	3	4	3	13	14	36	86	96	84	0
Lafayette	1,232	6.8	25	4	0	5	10	15	36	57	100	170	252	310	248	0
Lafourche	649	7.4	10	2	1	0	6	10	16	26	46	78	146	181	127	0
LaSalle	172	12.2	0	2	0	0	2	1	3	9		23	33	49	43	1
Lincoln	315	7.4	4	0	0	0	2	3	5	10		40		84	79	
Livingston	607	7.3	8	2	0	3	10	6	20	27	59	90	129	145	108	0
Madison	138	10.3	3	2	0	1	0	2	3	6	8	16	28	39	30	0
Morehouse	390	12.3	5	0	1	0	3	2	8	16	31	32	89	104	99	0
Natchitoches	398	10.5	5	0	0	0	3	3	5	14	40	44	76	115	92	1
Orleans	5,100	10.8	95	8	14	13	63	107	197	329	411	560	944	1223	1134	2
Ouachita	1,312	8.9	18	3	2	7	13	14	36	61	76	156	260	370	296	0
Plaquemines	202	7.8	5	0	0	3	3	1	9	12	19	37	44	47	22	0
Pointe Coupee	227	9.6	2	1	2	0	4	4	8	6	16	24	44	65	50	1
Rapides	1,258	9.8	18	2	3	3	12	17	28	45	81	146	253	355	293	2
Red River	121	12.3	0	0	0	0	1	1	2	4	8	11	28	36	30	0
Richland	255	12.5	2	0	2	0	2	2	7	12	14	24	55	69	66	0
Sabine	288	12.1	6	0	2	0	0	5	11	6	12	45	53	68	80	0
St. Bernard	699	10.4	3	0	3	2	4	7	17	28	49	102	193	192	98	1
St. Charles	318	6.7	4	0	2	1	1	5	9	23	29	42	72	74	56	0
St. Helena	92	9.5	2	0	0	0	0	2	3	3	9	10	15	20	28	0
St. James	169	7.8	3	1	0	2	0	3	7	8	12	25	39	39	30	0
St. John	303	7.2	8	0	2	1	2	2	8	14	31	43	64	74	54	0
St. Landry	856	10.4	15	2	2	3	6	10	21	27	54	106	178	247	184	1
St. Martin	369	7.9	3	6	1	0	5	5	19	14	28	56	74	99	59	0
St. Mary	488	8.5	5	1	1	1	4	2	17	27	44	56	111	119	100	0
St. Tammany	1,287	7.1	14	5	6	1	7	23	15	61	101	161	311	331	251	0
Tangipahoa	926	9.7	14	6	1	5	7	6	21	43	56	117	173	263	214	0
Tensas	78	11.6	1	0	1	1	3	2	1	1	5	9	19	25	9	0
Terrebonne	779	7.6	18	4	2	0	15	11	21	34	55	122	183	177	136	1
Union	276	12.7	6	1	0	0	2	1	3	6	21	38	47	75	76	0
Vermilion	503	9.8	7	1	2	0	4	5	9	17	26	63	104	144	120	1
Vernon	354	7.5	7	1	0	0	8	8	11	19	28	50	79	86	57	0
Washington	509	11.6	5	0	2	2	7	4	16	19	35	58	109	158	93	1
Webster	483	11.3	5	0	1	0	2	2	9	12	22	51	103	150	126	0
W. Baton Rouge	189	9.2	4	0	0	0	2	2	9	13	9	31	42	36	41	0
W. Carroll	149	12.2	0	1	0	0	2	1	5	1	12	18	27	42	40	0
W. Feliciana	80	5.9	2	0	0	0	3	1	1	7	5	9	15	16	21	0
Winn	226	13.1	1	1	1	2	2	1	7	8	16	22	50	57	58	0

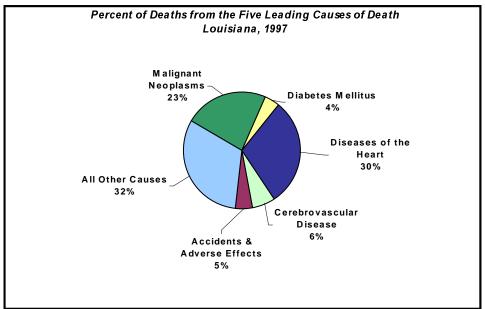
<sup>\*</sup>Rate per 1000 population



The age-adjusted death rate due to all causes for Louisiana in 1997 was 580.7 per 100,000 population. In comparison with the United States and other states, using preliminary 1997 data from the CDC's National Center for Health Statistics, Louisiana's age-adjusted death rate (582.9 per 100,000) is the second highest in the nation, and is markedly higher than that of the United States as a whole (478.1 per 100,000). Louisiana belongs to a group of southern states (Mississippi, Alabama, Georgia, and South Carolina) that traditionally has higher age-adjusted death rates for stroke, cancer, cardiovascular disease, and all-cause mortality.

### **Leading Causes of Death**

Of the total 39,917 deaths to Louisiana residents in 1997, the leading causes of death were (in order) diseases of the heart, malignant neoplasms (cancer), cerebrovascular disease (stroke), accidents & adverse effects, and diabetes, as displayed in the figure below. Sixty-eight percent of all deaths in Louisiana in 1997 are attributable to these five causes.



Source: Louisiana State Center for Health Statistics

The top three causes, diseases of the heart, malignant neoplasms, and cerebrovascular disease, together account for 59% of total deaths. Little variation was observed in the rates compared with 1996. In fact, these top four causes have consistently been the leading causes of death in Louisiana for the past twenty years (see following tables), though the rankings may have changed. The fifth-ranked cause has varied among diabetes, chronic obstructive pulmonary disease (COPD), and influenza and pneumonia. The three leading causes of death in Louisiana are identical to those of the nation as a whole. However, diabetes is a more serious problem in the state (5<sup>th</sup>) than on the national level (7<sup>th</sup>), and accidents are ranked higher in Louisiana (4<sup>th</sup>) than nationally (5<sup>th</sup>). COPD nationally is ranked higher (4<sup>th</sup>) than in Louisiana (6<sup>th</sup>).

While diseases of the heart have been the number one cause of death in Louisiana for many years, the 1997 crude death rate continues the dramatic downward trend over the past two decades in both Louisiana and the United States as a whole. Furthermore, malignant neoplasms, cerebrovascular diseases, and accidents rates also have steadily declined.

When we look beyond the top five causes of death in Louisiana in 1997, we find COPD, pneumonia and influenza; homicide and legal intervention; nephritis, nephrotic syndrome, and nephrosis; and septicemia rounding out the top ten causes of death in the state. On the national level, the 1997 preliminary (CDC) top ten causes do not include homicide & legal intervention or septicemia, but do include suicide and chronic liver disease & cirrhosis.

The age-adjusted death rates for the leading causes of death in Louisiana were determined by ranking the crude death rates from highest to lowest and then adjusting these rates (in the same order) for age.

The top five cause-specific, age-adjusted death rates for Louisiana in 1997 were:

- · Diseases of the heart
- Cancer
- · Cerebrovascular disease
- · Accidents and adverse effects
- · Diabetes mellitus

In comparing the ten most common causes of death in Louisiana with those of the United States as a whole, deaths from accidents/adverse effects, diabetes mellitus and homicide ranked higher in Louisiana then in the nation; deaths from COPD, pneumonia, HIV infection, suicide, and chronic liver disease/cirrhosis ranked lower. However, almost all of Louisiana's ten age-adjusted leading causes of death are higher than in the United States, COPD and pneumonia being the exceptions.

	Age-Adjusted Mortality Rates* for the Top Ten Causes of Death Louisiana and United States, 1997							
	Louisiana	varoraria arra er	United States					
Pank	Cause of Death	Age-Adjusted Death Rate		Cause of Death	Age-Adjusted Death Rate			
	All Causes	Death Nate	Naiin -	All Causes	Death Nate			
1	Diseases of the Heart	153.3	1	Diseases of the Heart	129.9			
2	Malignant Neoplasms	146.3		Malignant Neoplasms	125.0			
	Cerebrovascular Disease	30.0		Cerbrovascular Disease	25.9			
4	Accidents & Adverse Effects	38.9	4	Chronic Obstructive Pulmonary Disease	21.4			
5	Diabetes Mellitus	24.3	5	Accidents & Adverse Effects	28.9			
6	Chronic Obstructive Pulmonary Disease	33.8	6	Pneumonia & Influenza	13.2			
7	Pneumonia & Influenza	12.2	7	Diabetes Mellitus	13.4			
8	Homicide & Legal Intervention	16.9	8	Suicide	10.3			
9	Nephritis, Nephrotic Syndrome, & Nephrosis	7.2	9	Nephritis, Nephrotic Syndrome, & Nephrosis	4.5			
10	Septicemia	7.0	10	Chronic Liver Disease & Cirrhosis	7.2			

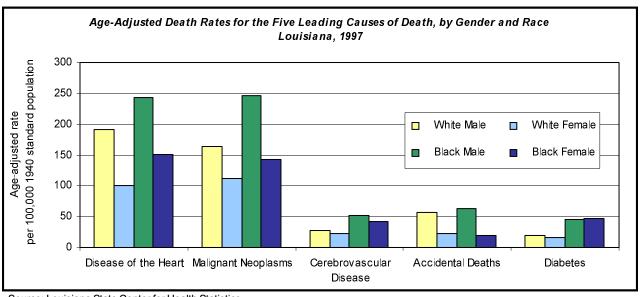
\*Rates per 100,000 population

Source: Louisiana Center for Health Statistics
National Center for Health Statistics



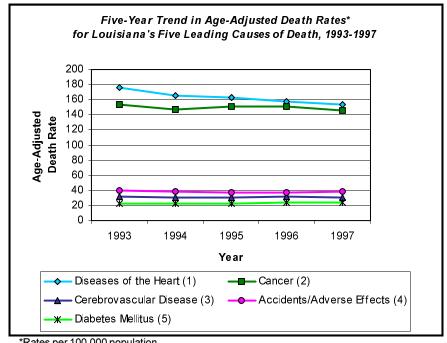
The following chart illustrates the benefits of using age-adjusted mortality rates when comparing mortality in different population groups. This chart displays age-adjusted mortality rates for the five leading causes of death in Louisiana in 1997. This adjustment allows for direct comparison of all race-gender groups.

The age-adjusted rates show that males, particularly African-American males, are at higher risk than females for death from heart disease, cancer, and accidents. African-Americans are at higher risk than whites for death from diabetes.



Source: Louisiana State Center for Health Statistics

The following graph displays overall age-adjusted mortality rates for Louisiana's major causes of death over the past five years. With the exception of heart disease deaths, little has changed since 1993.



\*Rates per 100,000 population



The following table lists age-adjusted mortality rates for the four major race-gender groups over the last five years.

Age-Adjusted Death Rates* for Selected Causes of Mortality, by Race and Gender Louisiana, 1993-1997										
Cause of Death/Race/Gender	1993	1994	1995	1996	1997					
Diseases of the Heart	175.9	165.5	163.2	157.5	153.3					
White Male	214.1	203.3	200.7	198.1	191.4					
White Female	113.4	108.6	103.5	103.8	101.1					
Black Male	297.0	263.7	271.6	248.1	243.2					
Black Female	187.1	171.5	172.1	157.0	150.9					
Cerebrovascular Diseases	31.6	30.4	31.1	32.2	30.0					
White Male	28.1	27.8	28.8	29.9	27.4					
White Female	22.7	22.2	24.9	24.3	22.2					
Black Male	60.9	55.8	54.0	57.6	51.2					
Black Female	43.8	42.5	38.3	42.2	42.0					
Malignant Neoplasm	153.7	147.4	151.2	151.1	146.3					
White Male	177.8	173.5	171.4	177.6	163.6					
White Female	114.2	112.5	116.7	112.2	112.7					
Black Male	277.8	247.9	258.5	256.7	245.7					
Black Female	138.4	131.4	142.8	142.1	143.2					
Chronic Obstructive Pulmonary Disease	20.2	20.7	20.1	20.1	19.8					
White Male	28.2	29.2	25.4	27.2	26.8					
White Female	16.9	17.2	17.6	17.1	17.0					
Black Male	25.3	25.8	28.9	26.7	25.0					
Black Female	11.9	11.1	12.1	11.3	10.3					
Human Immunodeficiency Virus	14.4	14.8	16.7	13.8	9.0					
White Male	22.3	22.1	20.6	14.2	6.0					
White Female	0.9	1.6	0.9	1.5	0.5					
Black Male	39.7	40.4	55.2	48.6	37.9					
Black Female	6.4	6.9	12.0	12.6	9.8					
Accidental Deaths	39.6	38.0	37.6	37.7	38.9					
White Male	55.4	55.5	54.8		56.0					
White Female	20.3	20.7	21.3		22.6					
Black Male	73.5	64.4	61.9	69.9	62.5					
Black Female	22.4	20.8	20.8	18.6	19.6					
Homicide	22.3	22.0	18.5	19.4	16.9					
White Male	9.3	9.7	8.0	8.6	8.2					
White Female	4.4	2.7	2.2	3.5	3.6					
Black Male	99.2	101.4	81.8	82.5	68.2					
Black Female	15.3		11.8		12.7					
Suicide	12.0	12.3	11.8	12.0	11.5					
White Male	23.0	22.3	21.8	22.9	21.5					
White Female	5.5	6.4	6.1	5.9	6.5					
Black Male	13.6	13.5	13.9	13.7	11.7					
Black Female	2.1	2.8	2.3	1.6	1.7					
Pneumonia and Influenza	12.2	12.0	11.4	11.5	12.2					
White Male	15.5	13.9	13.6	13.9	14.5					
White Female	9.1	9.1	8.8	9.4	9.3					
Black Male	17.2	22.1	17.3	19.0	20.1					
Black Female	11.9	10.6	11.2	8.4	10.3					
Diabetes	22.6	22.3	22.7	24.2	24.3					
White Male	16.8	16.9	16.9	18.8	18.9					
White Female	15.5	15.2	15.1	16.2	15.4					
Black Male	40.6	39.6	44.9	42.0	46.2					
Black Female	44.1	42.7	44.1	46.9	46.7					

\*Rates per 100,000 population



#### **Infant Deaths**

### Overview

Infant mortality encompasses all deaths that occur within the first year of life and excludes fetal deaths (miscarriages and abortions). This measure can be a significant predictor of the health status of a particular area, population, or nation, since it is associated with many factors, such as socioeconomic status and access to health care.

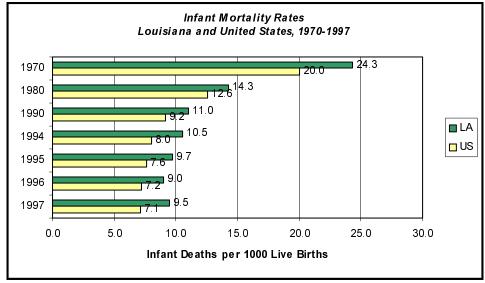
There are several measures used to describe mortality in this age group. While infant mortality measures deaths during the first year, neonatal mortality describes deaths occurring through the first 27 days. Other measures include post-neonatal mortality, which measures deaths occurring from 28 days to one year, hebdomadal mortality, which is limited to the first seven days, and perinatal mortality, which measures deaths occurring late in gestation and after birth.

Infant Mortality Rates* by Race of Child Louisiana, 1997									
Race	Number of Deaths	Infant Mortality Rate	Neonatal Mortality Rate	Post- Neonatal Mortality Rate	Hebdomadal Mortality Rate	Perinatal Mortality Rate			
Total	629	9.5	6.2	3.3	4.9	12.8			
White	254	6.8	4.4	2.4	3.2	9.3			
Black	370	13.6	8.9	4.7	7.3	17.7			
Other	5	3.6	2.9	0.7	2.9	10.0			

\*All rates, except perinatal, are per 1000 live births Source: Louisiana State Center for Health Statistics

#### Infant Mortality

Infant mortality is defined as death during the first year of life. This measure excludes fetal deaths (abortions and miscarriages). In 1997 in the state of Louisiana, there were 629 deaths to children under one year of age. The infant mortality rate is defined as the number of deaths within the first year of life per 1000 live births. As shown in the figure below, the infant mortality rate has been dropping steadily in the past several decades, with the greatest change observed between 1970 and 1980—a 41% reduction. Although the rate rose between 1996 and 1997, it has seen an overall decline in the past few years—from 10.5 deaths per 1000 live births in 1994 to 9.5 in 1997.



Sources: Louisiana State Center for Health Statistics National Center for Health Statistics



While the trend in Louisiana reflects a decline in infant mortality rates over the past several decades, the rate is still high compared with the national infant mortality rate. The state mortality rate has been at least 20% greater than the national rate since 1992. In 1995, the United States rate was 7.6 deaths per 1000 live births, and in 1997 the national rate was 7.1. By international standards, even this national rate is high. In 1993, 24 other countries' infant mortality rates were lower than the United States.<sup>14</sup>

There are geographic variations in infant mortality as well. As shown in the parish-level tables that follow this section, rates range from 5.7 to 17.6, with the rate for Morehouse parish being three times the infant mortality rate in Catahoula.

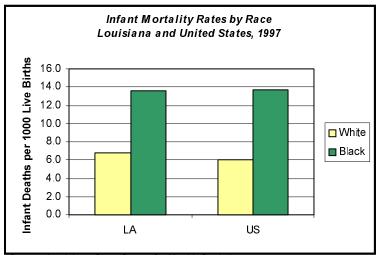
In the table below, infant mortality rates are are furnished to provide an idea of Louisiana's standing among the neighboring states. (Note: Although Louisiana's final 1997 rate is available and is reported in this document, National Center for Health Statistics preliminary 1997 data for all states have been used in the table below to permit comparison with surrounding states.) While all except Texas' rate are well above the national figure, Louisiana's infant mortality rate lies in the middle of the spectrum of the neighboring state rates.

Infant Mortality Rates* Louisiana, Neighboring States, and the United States, 1997						
Alabama 9.3						
Arkansas	8.4					
Louisiana	9.0					
Mississippi	10.9					
Texas	6.0					
United States	7.0					

<sup>\*</sup>Rate per 1,000 live births

Source: National Center for Health Statistics (preliminary 1997)

Infant mortality rates differ substantially by race. Though rates of infant death are decreasing across racial groups, children born to African-American mothers tend to have higher infant mortality rates than those born to white mothers. It is important to note that starting in 1989, the race of the mother is used for analyses instead of the race of the child, so race-specific infant mortality rates prior to 1989 are not comparable with more current rates. In 1997, there were 254 white, 370 African-American, and 5 other race deaths in Louisiana. The infant mortality rates were 6.8, 13.6, and 3.6 deaths per 1000 race-specific live births respectively. The overall infant mortality rate for African-Americans is double that of whites.



Source: Louisiana State Center for Health Statistics National Center for Health Statistics

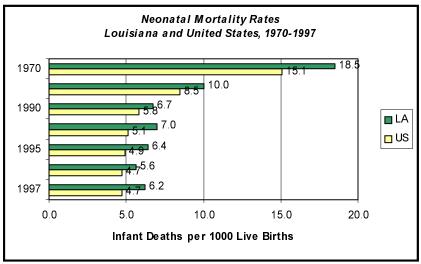
<sup>&</sup>lt;sup>14</sup> National Center for Health Statistics. Health, United States 1996-1997 and Injury Chartbook. Hyattsville, Maryland, 1997.



### Neonatal Mortality

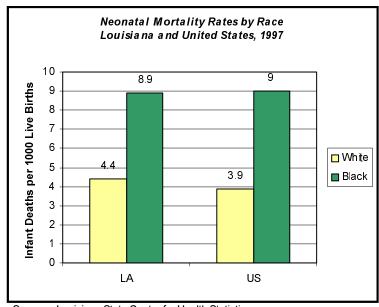
Neonatal mortality represents the period from birth through the first 27 days of life, and the neonatal mortality rate is calculated as the number of deaths during this period per 1000 live births. In 1997, 410 neonatal deaths accounted for 65% of total infant deaths. The overall neonatal mortality rate was 6.2 per 1000. This is an increase from 1996, when the rate was 5.6 per 1000.

Displayed in the figure below is the pattern of neonatal mortality in Louisiana and the United States. The state rate has been decreasing, though it is still higher than the national rate.



Source: Louisiana State Center for Health Statistics National Center for Health Statistics

Racial disparity is still observed; Louisiana's 1997 neonatal mortality rate for whites was 4.4 per 1000, while the rate for African-Americans was twice as high at 8.9 per 1000. While Louisiana's overall rate is higher than the national rate, the state's race-specific rates mirror those of the United States, with white rates slightly higher in Louisiana than in the rest of the country.



Sources: Louisiana State Center for Health Statistics National Center for Health Statistics

Infant Mortality by Parish and Race of Mother							
	ouisiana, 1993-199						
Parish / Race	1997 Number of	1993-1997					
	Infant Deaths	Infant Mortality					
		Rate*					
Louisiana	629	9.9					
White	254	6.7					
Black	370	14.7					
Other	5	3.1					
Acadia	14	14.6					
White	10	11.0					
Black	4	24.3					
Other	0	-					
Allen	0	6.7					
White	0	5.6					
Black	0	10.8					
Other	0	-					
Ascension	5	6.9					
White	2	4.4					
Black	3	13.6					
Other	0	-					
Assumption	2	13.6					
White	2	15.4					
Black	0	11.3					
Other		-					
Avoyelles	3	6.3					
White	2	5.5					
Black	1	7.9					
Other	Ö	7.5					
Beauregard	3	6.2					
White	3	5.5					
Black		10.7					
Other		10.7					
Bienville	2	10.4					
White	1	7.5					
Black	1	13.4					
Other		10.4					
Bossier	19	8.1					
White	8	5.6					
Black	10	13.9					
Other	1						
Caddo		13.6					
	47	11.4					
White Black	7 40	4.9 17.0					
		17.0					
Other Calcasieu	0 26	9.1					
	16	9.1 6.7					
White							
Black	10	15.0					
Other	0	- 440					
Caldwell	2	14.6					
White	2	12.2					
Black	0	24.2					
Other	0	-					

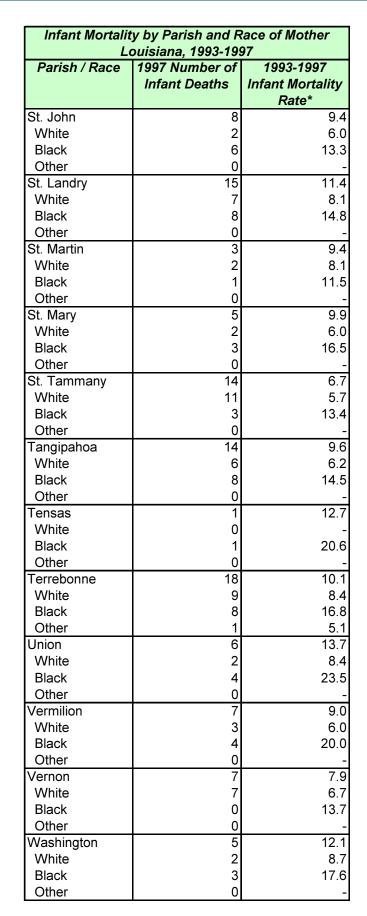


Infant Mortality by Parish and Race of Mother Louisiana, 1993-1997							
Parish / Race	1997 Number of	1993-1997					
	Infant Deaths	Infant Mortality Rate*					
Cameron	0	13.1					
White	0	14.0					
Black	0	-					
Other	0	-					
Catahoula	4	5.7					
White	3	6.6					
Black	1	4.0					
Other	0	-					
Claiborne	4	10.9					
White	1	5.0					
Black	3	15.1					
Other	0	-					
Concordia	4	11.3					
White	2	8.9					
Black	2	13.7					
Other	0	-					
DeSoto	2	12.1					
White	0	7.0					
Black	2	16.4					
Other	0	-					
E. Baton Rouge	69	11.7					
White	10	5.8					
Black	59	18.1					
Other	0	6.5					
E. Carroll	1	8.0					
White	0	-					
Black	1	10.4					
Other	0	-					
E. Feliciana	2	12.5					
White	1	10.8					
Black	1	14.4					
Other	0	-					
Evangeline	6	8.8					
White	3	6.7					
Black	3	12.3					
Other	0	-					
Franklin	2	10.0					
White	0	3.6					
Black	2	17.4					
Other	0	-					
Grant	2	9.1					
White	1	6.3					
Black	1	24.0					
Other	0	-					
Iberia	15	10.3					
White	7	6.9					
Black	8	14.1					
Other	0	19.1					

Infant Mortality by Parish and Race of Mother Louisiana, 1993-1997						
Parish / Race	1997 Number of	1993-1997				
r arrowr rado	Infant Deaths	Infant Mortality				
	mant Deaths	Rate*				
Iberville	5	10.9				
White	2	5.9				
Black	3	14.7				
Other	0	17.7				
Jackson	0	7.8				
White	0	4.5				
Black	0	14.0				
Other	0	14.0				
Jefferson	52	8.0				
White	32	6.6				
Black	18	12.2				
Other	2					
Jefferson Davis	5	1.7 7.2				
	1	4.7				
White	-					
Black	4	15.6				
Other	0	-				
Lafayette	25	8.6				
White	14	5.7				
Black	11	15.0				
Other	0	-				
Lafourche	10	8.1				
White	8	6.3				
Black	2	15.8				
Other	0	-				
LaSalle	0	9.8				
White	0	11.2				
Black	0	-				
Other	0	-				
Lincoln	4	13.0				
White	1	8.5				
Black	3	17.4				
Other	0	-				
Livingston	8	9.6				
White	6	7.8				
Black	2	32.1				
Other	0	-				
Madison	3	14.6				
White	1	9.3				
Black	2	16.5				
Other	0	-				
Morehouse	5	17.6				
White	1	11.2				
Black	4	22.7				
Other	0	-				
Natchitoches	5	11.3				
White	2	5.9				
Black	3	16.4				
Other	0	-				



Infant Mortality by Parish and Race of Mother Louisiana, 1993-1997							
Parish / Race	1997 Number of	1993-1997					
	Infant Deaths	Infant Mortality Rate*					
Orleans	95	11.4					
White	18	7.3					
Black	77	12.7					
Other	0	2.3					
Ouachita	18	10.4					
White	5	6.1					
Black	13	15.6					
Other	0	-					
Plaquemines	5	7.8					
White	5	8.3					
Black	0	6.6					
Other	0	9.3					
Pointe Coupee	2	8.6					
White	1	11.4					
Black	1	5.8					
Other	0	_					
Rapides	18	11.5					
White	10	8.6					
Black	7	15.6					
Other	1	15.6					
Red River	0	9.7					
White	0	2.8					
Black	0	16.8					
Other	0	10.0					
Richland	2	14.0					
White	1	15.0					
Black	1	13.1					
Other	0	10.1					
Sabine	6	10.7					
White	1	7.8					
Black	5	20.1					
Other	0	20.1					
St. Bernard	3	6.3					
White	2	5.6					
Black	1	15.8					
Other	0	13.0					
St. Charles	4	6.5					
White	3	4.9					
Black	3 1	10.1					
Other	0	10.1					
St. Helena	2	14.2					
White	1	7.5					
Black	1	7.5 20.5					
		∠0.5					
Other	0	- 44.0					
St. James	3	11.6					
White	2 1	12.7					
Black		10.8					
Other	0	-					





Infant Mortality by Parish and Race of Mother Louisiana, 1993-1997						
Parish / Race	1997 Number of					
	Infant Deaths	Infant Mortality				
\	_	Rate*				
Webster	5	8.1				
White	2	5.8				
Black	3	11.1				
Other	0	-				
W. Baton Rouge	4	10.5				
White	1	5.2				
Black	3	17.3				
Other	0	-				
W. Carroll	0	6.7				
White	0	9.0				
Black	0	-				
Other	0	-				
W. Feliciana	2	13.4				
White	0	3.3				
Black	2	24.3				
Other	0	-				
Winn	1	12.4				
White	0	10.1				
Black	1	16.0				
Other	0					

\*Rate per 1000 live births. Very small numbers of deaths, such as those seen for 1997 infant mortality, result in rates that are likely to fluctuate from year to year. To create rates that are more stable, 1993-97 Five-Year Infant Mortality rates have been calculated. Source: Louisiana State Center for Health Statistics

## **Injury Deaths**

Injuries are a substantial and preventable public health problem and account for approximately 8% of deaths in Louisiana. In 1993, injuries accounted for 57% of all deaths among persons aged 1-34 and 78% of all deaths among persons 15-24 years. Many injury epidemiology and injury control programs depend on injury mortality and morbidity data for program planning and evaluation.

When referring to injury deaths, the term "injury" includes (a) unintentional injuries, suicides, and homicides and (b) injuries from undetermined intent, legal intervention (i.e. law enforcement), and operations of war. The term does not include adverse effects of either medical care or therapeutic use of drugs.<sup>15</sup>

	Number and Rate of Injury Deaths by Cause and Intent of Injury
	Louisiana, 1997
	N=3118
	Intent
_	

	Intent											
Cause	Unintentional		Suic	ide	Homic		Undeter	mined	Other		Total	
	Number	Rate*	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Cut/pierce	2	0.05	3	0.1	76	1.7	0	0.00	0	0.00	81	1.9
Drowning/submersion	126	2.9	12	0.3	1	0.02	5	0.1		i	144	3.3
Fall	220	5.1	0	0.00	0	0.00	2	0.05			222	5.1
Fire/Burn	87	2.0	3	0.1	4	0.1	1	0.02			95	2.2
Firearm	38	0.9	386	8.9	534	12.3	8	0.2	2	0.05	968	22.2
Machinery	28	0.6									28	0.6
Motor-vehicle, Traffic	903	20.8	2	0.05			0	0.00			905	20.8
Pedal Cyclist, other**	2	0.05									2	0.05
Pedestrian, other	16	0.4									16	0.4
Transport, other	36	0.8	0	0.00			0	0.00			36	0.8
Natural, environmental	27	0.6	0	0.00			0	0.00			27	0.6
Overexertion	0	0.00									0	0.00
Poisoning	125	2.9	66	1.5	0	0.00	40	0.9	0	0.00	231	5.3
Struck by, against	23	0.5			7	0.2			0	0.00	30	0.7
Suffocation	88	2.0	51	1.2	17	0.4	4	0.1			160	3.7
Other specified, classifiable	36	0.8	0	0.00	7	0.2	0	0.00	1	0.02	44	1.0
Other specified, not												
elsewhere classifiable	3	0.1	2	0.05	24	0.6	2	0.05	0	0.00	31	0.7
Unspecified	66	1.5	2	0.05	26	0.6	4	0.1	0	0.00	98	2.3
Total	1826	42.0	527	12.1	696	16.0	66	1.5	3	0.1	3118	71.6

Source: LA Office of Public Health, Vital Statistics Electronic Files

Note: "-" Indicates category not specified by International Classification of Diseases Coding System

<sup>\*</sup>Rate per 100,000 Residents; Based on 1997 U.S. Census Bureau Estimate

<sup>\*\*</sup> Other includes railway and nontraffic crashes

<sup>&</sup>lt;sup>15</sup> Centers for Disease Control and Prevention. "Recommended Framework for Presenting Injury Mortality Data." MMWR (46:RR-14) 1997.

# **II. MORBIDITY**



### A. INFECTIOUS DISEASES

### Background

Vaccines are among the most effective and reliable of medicines for people of all ages. Every year, they prevent countless serious illnesses and thousands of possible deaths. About 100 million vaccine doses are given annually in the United States, most of them to infants and children as part of their routine immunization schedule. A single dose of some vaccines gives nearly complete protection. With others, a series of doses spread over months or years is needed for the best results.

Children in particular are beneficiaries of the protection from illness that vaccines offer. Currently, there are ten diseases from which children are routinely protected through the use of standard childhood immunizations. These diseases are: diphtheria, tetanus, pertussis (whooping cough), polio, measles, mumps, rubella (German measles), hepatitis B, Haemophilus influenzae B (bacterial meningitis), and varicella (chicken pox). Enormous reductions have been seen in each of these serious diseases since the introduction of vaccines. For example, there were 894,134 cases of measles reported in the U.S. in 1941, but only 138 in 1997. Louisiana had no reported cases of measles in 1997.

Although the public is most familiar with the vaccines used for childhood immunization, there are many others that afford protection to individuals at risk of infection from other types of exposures. An example is the hepatitis A vaccine, which recently has become available to selected populations, such as travelers to areas where the disease is endemic.

In addition to being reliable and effective, vaccines are also one of the most cost-effective medical procedures available. The ten vaccine-preventable diseases addressed in standard childhood immunizations are very serious illnesses and very expensive to treat. Vaccines are relatively inexpensive and very effective. Cost estimates show that each dollar spent on immunization saves \$10-\$12 in direct medical and hospitalization costs. These estimates do not include attendant costs, such as workdays lost by family members, costs for outbreak control, or the burden of lives lost to these severe diseases. A prime example is measles, which leads to the hospitalization of approximately 10% of those who become ill. Even with excellent medical care, approximately 1 out of every 1000 cases dies, usually from measles infection of the lungs and of the brain.

The diseases that are prevented by routine childhood immunizations have not disappeared. Pertussis is spread by direct contact, such as coughing, to others who are not immune. As a result of childhood immunization, Louisiana reported only 22 cases of pertussis in 1997. In countries where childhood immunization against pertussis has been halted, there have been large outbreaks of whooping cough. Diphtheria, another dangerous infection, which has been controlled through childhood immunization, has not been seen in Louisiana since 1972. However, there currently is an epidemic of diphtheria in Eastern Europe and Asia. Without immunization, re-introduction of this disease into Louisiana via an infected person from one of these regions is easily possible.



#### 1997 Status

Hepatitis A (HAV) is a viral disease that affects the liver. The number of hepatitis A cases reported in 1997 increased slightly (by 3.3%) from 1996 and 38% from 1995, but Louisiana's case rate consistently has remained lower than the national rate (6.2 vs. 11.7 per 100,000). Sex-race specific rates per 100,000 were highest among African-American males (6.6) followed by African-American females (5.9). Rates by age groups were highest among the 20-44 years age group, which accounted for 50% of the cases reported. This trend is almost identical to that of last year.

Region 8 (the Monroe area) continues to be an endemic area for hepatitis A. It is now joined by Region 7 (the Shreveport area), which includes parishes with the highest numbers of cases reported.

Approximately 58% of the 266 cases statewide reported risk factor information. Of these case reports, 12% attended day care, 16% were contacts of an attendee in a day care, 32% were contacts of a known hepatitis A case, 10% of hepatitis A cases were foodhandlers, and 5% acquired hepatitis A from international travel. Five parishes reported case rates exceeding the state case rate per 100,000: Red River (178), Ouachita (46), Evangeline (18), and Bossier and Caddo (15) each.

Hepatitis B (HBV) is a serious public health problem that affects people of all ages in the United States and around the world. Each year an estimated 300,000 people become infected with the hepatitis B virus in the United States. The disease is caused by a virus that attacks the liver. A person can get hepatitis by direct contact with the blood or body fluids of an infected person. A baby can get hepatitis B from an infected mother during childbirth. Symptoms of hepatitis B include yellowing of the skin or eyes, loss of appetite, nausea, vomiting, fever, extreme tiredness, or stomach pain.

The best protection from hepatitis B is to be vaccinated with the hepatitis B vaccine, which is safe and effective. Research is also being carried out on drugs that have the potential for improving treatment of chronic hepatitis.

In 1997, hepatitis B case reports were essentially unchanged from 1996 and decreased by 15% from 1995. Sex-specific rates continue to be higher for males than females (5.2 vs. 4.5 per 100,000). Race-specific rates were over three times higher for African-Americans than for whites (7.0 vs. 2.2 per 100,000). Cases by age group and sex peak in age groups 20-54 years of age for males and 15-44 years of age for females. Of the 208 cases reported, 46 contained information regarding drug use. Of these, 2 (4%) cases reportedly used IV drugs during the six weeks to 6 months prior to illness. One of 63 case reports (2%) and 2 of 42 (5%) case reports were either attendees of day care settings or contacts of day care attendees, respectively. Thirty-five out of 208 cases (17%) provided information about their hepatitis contacts. Of the 40 (63%) parishes reporting, the highest case rates per 100,000 were Red River (21), W. Feliciana (15), Tangipahoa (14), and Grant (11).

Pertussis (whooping cough) is a respiratory illness that can affect all age groups, but mostly is found in infants and young children. It is caused by a bacterium called *Bordetella pertussis*. These bacteria are present in the mouths and noses of infected people. Pertussis symptoms are the usual cold symptoms, which then develop into coughing fits with a high-pitched "whooping" sound. Pertussis can be fatal in infants.



Immunization against pertussis involves five doses of the DTP (diphtheria, tetanus, and pertussis) combination vaccination starting at age two months.

There were 22 cases reported in Louisiana in 1997, a level that reflects an increase in reported cases and a return to the 1995 level of disease. Pertussis occurred nearly twice as often in females. All but three (86%) cases occurred in children less than five years of age. Nearly half of the cases lived in Public Health Region 1 (New Orleans area). Three cases occurred in children who were up-to-date for their age, but not old enough to have completed a primary vaccine series. Eleven cases were not old enough to have started the primary vaccination series. One case occurred in a child who had completed a primary vaccine series, but had not received the recommended boosters for his/her age. Of the three cases reported, two had unknown immunization histories, and one case occurred in an adult who had received five doses of pertussis vaccine in childhood. Fifteen cases were diagnosed by DFA, three by culture, three by both DFA and culture, and one was epidemiologically linked to a confirmed case.

*Mumps* is a viral respiratory disease that causes swelling and pain of salivary glands in the face and neck. Mumps is spread by contact with infected people. This disease is contagious from one to two days before and until seven days after symptoms appear. It is most infectious when the swelling starts. The symptoms are fever, pain in front of the ears that increases during chewing, and swollen glands in the cheeks and sometimes under the jaw. It is most likely to affect children ages five to nine, but may occur at any age. It is likely to be more serious and painful in teenagers and adults.

Immunization against mumps involves two doses of MMR (measles, mumps and rubella) vaccine, usually at ages 12 months and at four to six years.

In 1997, 18 cases of mumps were reported, down from 24 cases in 1996. Illness occurred equally in males and females. Four cases were reported in both Calcasieu and East Baton Rouge parish residents. Three cases were reported in St. Tammany parish residents. Sixty-seven percent of the cases occurred in those persons nineteen years of age and younger. For the second year in a row, the 5-9 year old age group had the largest number of cases. Six cases received two doses of MMR vaccine prior to the onset of mumps. Two cases received one dose of MMR vaccine prior to the onset of illness and were not old enough to have received the recommended second dose. One case received no vaccine due to vaccine deferment for long term illness. The remaining nine cases of mumps reported no vaccine history.

Selected Infectious Diseases									
Louisiana 1993-1997									
1993   1994   1995   1996   1997									
Hepatitis A	105	171	196	261	266				
Hepatitis B	269	206	244	209	208				
Pertussis	14	15	22	15	22				
Mumps	20	39	15	24	18				

Source: Louisiana Office of Public Health, Infectious Epidemiology Program



Selected Infectious Diseases by Parish* Louisiana, 1997								
Parish	Henatitis A	Hepatitis B	Measles	Mumps	Pertussis	Rubella	Total	
Louisiana	266	208	0	18	22	0	514	
Acadia	1	4	0	0	0	0	5	
Allen	0	2	0	0	0	0	2	
Ascension	2	2	0	0	1	0	5	
Assumption	0	1	0	0	0	0	1	
Avoyelles	1 1	4	0	0	0	0	5	
Beauregard	0	1	0	0	0	0	1	
Bienville	1	0	0	0	0	0	1	
Bossier	13	8	0	2	0	0	23	
Caddo	38	22	0	1	2	0	63	
Calcasieu	10	11	0	4	1	0	26	
DeSoto	1	0	0	0	0	0	1	
East Baton Rouge	9	9	0	4	0	0	22	
East Carroll	0	1	0	0	0	0	1	
Evangeline	6	2	0	0	0	0	8	
Franklin	1	0	0	0	0	0	1	
Grant	0	2	0	0	0	0	2	
Iberia	0	5	0	0	0	0	5	
Iberville	0	5 1	0	0		0	1	
	1	0	0	0	0	0	1	
Jackson	<u> </u>			_	_	_	•	
Jefferson	20	23	0	1	4	0	48	
LaSalle	1	0	0	0	0	0	1	
Lafayette	11	2	0	0	0	0	13	
Lafourche	1	5	0	0	1	0	7	
Lincoln	3	1	0	0	0	0	4	
Livingston	3	2	0	1	0	0	6	
Morehouse	2	2	0	1	0	0	5	
Natchitoches	4	1	0	0	0	0	5	
Orleans	23	44	0	0	7	0	74	
Ouachita	65	10	0	0	0	0	75	
Plaquemines	0	2	0	0	0	0	2	
Rapides	0	2	0	0	0	0	2	
Red River	17	2	0	0	0	0	19	
Richland	1	1	0	0	0	0	2	
St. Bernard	4	2	0	0	0	0	6	
St. Charles	0	1	0	0	1	0	2	
St. James	1	0	0	0	0	0	1	
St. John the Baptist	1	1	0	0	0	0	2	
St. Landry	1	2	0	0	0	0	3	
St. Martin	4	4	0	0	1	0	9	
St. Mary	0	1	0	0	0	0	11	
St. Tammany	6	4	0	3	2	0	15	
Tangipahoa	1	13	0	0	0	0	14	
Terrebonne	2	0	0	0	1	0	3	
Union	3	1	0	1	0	0	5	
Vernon	2	1	0	0	0	0	3	
Washington	2	3	0	0	0	0	5	
West Baton Rouge	0	1	0	0	0	0	1	
West Feliciana	0	2	0	0	0	0	2	
Webster	2	0	0	0	0	0	2	
Winn	2	0	0	0	1	0	3	

<sup>\*</sup>Parishes with no cases reported are not included.

Source: Louisiana Office of Public Health, Infectious Epidemiology Program



## B. Tuberculosis (TB)

### Background

Pulmonary Tuberculosis (TB) results from infection with an organism named Mycobacterium tuberculosis. Persons with TB may transmit the organism by coughing. If untreated, the pulmonary TB case may infect others who breathe in the organisms expelled by the infected person. Infection is not limited to the lungs; it also can occur in other regions of the body.

Due to the danger of contagion, individuals who have been exposed to TB should be identified and evaluated. A simple skin test is used to determine if the exposed person has been infected. If the skin test and evaluation reveal that the person has been infected, a course of preventive therapy may be prescribed to protect against progression from TB infection to TB disease. Preventive therapy generally consists of six-months of therapy with a single anti-TB drug called isoniazid, or INH.

Treatment of TB disease requires an initial course of four anti-tuberculosis drugs. Length of treatment for TB disease is usually six months, but may vary due to the severity of illness or the presence of other factors, such as HIV. Due to the potentially great public health impact of this infectious disease, and because of the intricacy of the therapy (i.e. length of treatment and number of medications involved), a practice called Directly Observed Therapy (DOT) is employed to assist the patient with his or her therapy and assure completion. With DOT, trained field staff or medical personnel monitor the efficacy of treatment and the patient's compliance with the treatment regimen.

#### 1998 Status

Louisiana reported 380 cases of TB in 1998, for a case rate of 8.7 per 100,000 people. This represents a 6.4% decrease from the 1997 figure of 406 cases (9.3 per 100,000) and a 9.5% decrease since the 1996 report of 420 cases (9.6 per 100,000). Caution should be urged however; decreases over such a short period do not necessarily reflect a trend in tuberculosis control.

Tuberculosis Case Counts Louisiana, 1994-1998						
1994	1995	1996	1997	1998		
434	475	420	406	380		

Source: Louisiana Office of Public Health, Tuberculosis Program

In 1997, Louisiana's state ranking for TB case rates (per 100,000) was the 8<sup>th</sup> highest in the nation. Louisiana's 1997 rate was similar to those in neighboring states, but was significantly higher than the national rate of 7.4 per 100,000. The national rate for 1998 is as of yet unavailable; however, the state rate of 8.7 per 100,000 is expected to exceed the U.S. rate this year as well.

Tuberculosis Cases and Rates Louisiana and Neighboring States, 1998						
State	Number of Cases	Case Rate				
Arkansas	171	7				
Louisiana	380	8.7				
Mississippi	225	Not Available				
Texas	1820	9.3				

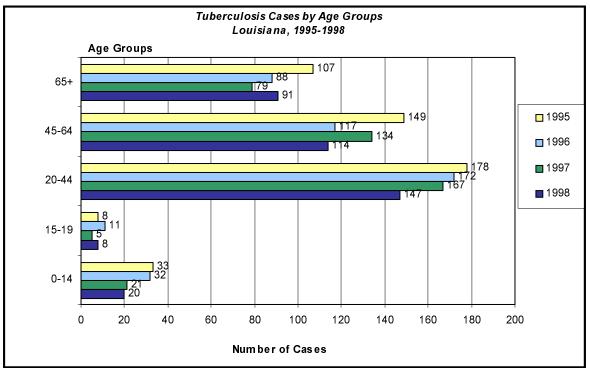
<sup>\*</sup> Rate per 100,000 population

Source: Louisiana Office of Public Health, Tuberculosis Program



Drug-resistant TB continues to be a problem in Louisiana. While only one case of multi-drug-resistant tuberculosis (MDR-TB) was reported in 1998, the incidence of single-drug (INH) resistance continues to exceed 4% — the recommended threshold for initiating a four-drug anti-TB regimen for new (or suspected) cases of TB.

As shown in the following graph, decreases were observed in each age group, with the exception of a 60% increase in the 15-19 age group (5 cases in 1997 to 8 cases in 1998) and a 15% increase in the 65+ age group.



Source: Louisiana Office of Public Health, Tuberculosis Program



# Louisiana Tuberculosis Cases and Rates By Region and Parish, 1998

State Total = 380 Cases State Case Rate = 8.7 per 100,000

State Case Nati	0.1 poi 100	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Region/Parish	Cases	Rate/100,000
Region 1	139	13.5
Jefferson	47	10.3
Orleans	86	17.9
Plaquemines	3	11.6
St. Bernard	3	4.5
Region 2	32	5.6
Ascension	2	2.9
E. Baton Rouge	23	5.8
E. Feliciana	1	5.0
Iberville	4	12.8
Point Coupee	2	8.6
W. Baton Rouge	0	0.0
W. Feliciana	0	0
Region 3	34	7.4
Assumption	1	4.4
Lafourche	5	5.8
St. Charles	3	6.6
St. James	2	9.2
St. John	2	4.8
St. Mary	10	17.4
Terrebonne	11	10.8
Region 4	25	4.8
Acadia	3	5.2
Evangeline	2	5.8
Iberia	2	2.8
Lafayette	8	4.4
St. Landry	4	4.8
St. Martin	0	0
Vermilion	6	11.7
Region 5	28	7.9
Allen	0	0
Beauregard	4	12.6
Calcasieu	17	9.6
Cameron	4	44.1
Jefferson Davis	3	9.5
Region 6	18	6
Avoyelles	1	2.5
Catahoula	0	0
Concordia	1	4.8
Grant	1	5.5
LaSalle	2	14.4
Rapides	9	7.0
Vernon	2	3.6
Winn	2	11.6



Louisiana Tuberculosis Cases and Rates By Region and Parish, 1998					
Region/Parish	Cases	Rate/100,000			
Region 7	47	9.3			
Bienville	0	0			
Bossier	8	8.7			
Caddo	25	17.4			
Claiborne	2	11.6			
DeSoto	2	7.8			
Natchitoches	0	0			
Red River	1	10.3			
Sabine	2	8.5			
Webster	7	16.6			
Region 8	43	12.2			
Caldwell	1	10			
E. Carroll	1	10.8			
Franklin	1	4.5			
Jackson	2	12.9			
Lincoln	6	13.8			
Madison	1	7.4			
Morehouse	2	6.3			
Ouachita	27	18.4			
Richland	0	0			
Tensas	0	0			
Union	2	9.2			
W. Carroll	0	0			
Region 9	14	3.7			
Livingston	2	2.5			
St. Helena	1	10.3			
St. Tammany	3	1.7			
Tangipahoa	6	6.4			
Washington	2	4.6			

Source: Louisiana Office of Public Health, Tuberculosis Program



# C. SEXUALLY TRANSMITTED DISEASES

#### Overview

Sexually transmitted diseases are the most commonly reported diseases in the United States and affect 15.3 million Americans in all population groups each year. By age 21, one in five young adults will have received treatment for an STD. Among the most serious complications are pelvic inflammatory disease, infertility, ectopic pregnancy, blindness, cancer associated with human papillomavirus, fetal and infant deaths, and congenital defects.<sup>1</sup>

	STD Rates* and National Rankings** Louisiana, 1994-1998								
Primary and Secondary Syphilis Gonorrhea Chlamydia						mydia			
Year	Rate	Rank	Rate	Rank	Rate	Rank			
1994	39	2	291	9	262	7			
1995	24	2	251	10	254	11			
1996	13	6	222	8	260	4			
1997	9	7	255	5	273	7			
1998	10	-	297	-	363	-			

<sup>\*</sup>Rates per 100,000 population 1990.

Sources: Louisiana Office of Public Health, STD Control Program.

CDC STD Surveillance Report 1997.

#### **Syphilis**

Syphilis infections are caused by *Treponema pallidum*, aspirochete (bacteria). The primary stage of the disease is characterized by a painless, indurated ulcer that appears at the site(s) of exposure in about 21 days (range of 10-90 days) and lasts from 1 to 5 weeks. The secondary stage, which usually appears 1 to 5 weeks after the primary ulcer has healed, is characterized by skin rash, mucous patches, and condylomata lata, sometimes accompanied by generalized lymphadenopathy, headache, and fever. The latent stage is defined as any interval following the primary stage during which persons have no clinical signs or symptoms.

Louisiana had the second highest rate of syphilis nationwide during the 1994-1995 period; in 1997 the rate fell to seventh highest in the nation. The total number of cases of early syphilis (primary, secondary, and early latent syphilis) is consistently declining, from 5,373 cases in 1993, to 883 cases in 1998. In 1998, 51% of early syphilis cases occurred in females, and 90% of the cases occurred in African-Americans. Almost 66% of early syphilis cases occurred among the 15-34 year-old population.

During the last five years, sharp and consistent declines in early syphilis rates have occurred. In the white population, the rate decreased 38% between 1994 and 1995, 40% between 1995 and 1996, and 33% between 1996 and 1997. However, early syphilis rates increased 50% between 1997 and 1998. In African-Americans, the rate decreased 35% between 1994 and 1995, 43% between 1995 and 1996, 40% between 1996 and 1997, and 6% between 1997 and 1998.

<sup>\*\*</sup>States ranked from highest to lowest disease incidence. Nationwide figures for 1998 are not yet available.

<sup>&</sup>lt;sup>1</sup>National Center for Health Statistics. Healthy People 2000 Review, 1997. Hyattsville, Maryland: Public Health Service. 1997.



	Early Syphilis (Primary, Secondary, and Early Latent) Rates,* by Sex and Race Louisiana, 1994-1998										
		White			Black			Other			
Year	Males	Females	Total	Males	Females	Total	Males	Females	Total		
1994	7	9	8	277	301	290	15	5	10		
1995	3	6	5	181	197	189	17	7	12		
1996	2	3	3	107	109	108	2	5	4		
1997	2	2	2	61	68	65	2	2	2		
1998	3	3	3	64	58	61	10	7	9		

<sup>\*</sup>Rates per 100,000 population 1990

Source: Louisiana Office of Public Health, STD Control Program

The Louisiana incidence rate for primary and secondary syphilis for 1998 was 10 per 100,000 people (Census 1990), and the national rate for 1997 was 3.2. *The Healthy People 2000 Review 1997* objective for primary and secondary syphilis is to reduce the incidence rate to no more than 4 cases per 100,000 people and the incidence among African-Americans to no more than 30 cases per 100,000.

Primary and Secondary Syphilis Rates* Louisiana, Neighboring States, and United States, 1993-1997							
	1993	1994	1995	1996	1997		
Alabama	20.8	15.7	14.4	12.4	9.6		
Arkansas	23.0	18.2	19.9	10.5	6.9		
Louisiana	61.0	39.0	24.0	13.0	8.4		
Mississippi	66.7	78.1	72.4	30.4	14.4		
Texas	14.0	10.4	8.3	4.8	3.5		
United States	10.3	7.9	6.3	4.3	3.2		

<sup>\*</sup>Rates per 100,000 population

Sources: Louisiana Office of Public Health, STD Control Program

CDC STD Surveillance Report 1997

#### Gonorrhea

Infections by *Neisseria gonorrhoeae* may be symptomatic or asymptomatic, and they include genital, anorectal, and pharyngeal infections.

Louisiana had the ninth highest rate of gonorrhea nationwide in 1994, and the tenth highest in 1995. In 1996, Louisiana declined to the eighth highest, and then to the fifth highest in 1997. The total number of cases of gonorrhea had been consistently declining, from 12,288 cases in 1994 to 10,761 cases in 1997, but in 1998 the number rose to 12,543. In 1998, 49% of the cases of gonorrhea occurred in females; 88% of the cases occurred in African-Americans; one third of the cases occurred among teens 15-19 year old, and almost 32% of the cases of gonorrhea occurred among 20-24 year olds.



	Gonorrhea Rates* by Sex And Race Louisiana, 1994-1998									
		White			Black			Other		
Year	Males	Females	Total	Males	Females	Total	Males	Females	Total	
1994	19	33	26	1133	616	857	46	39	43	
1995	18	29	23	940	564	740	37	41	39	
1996	14	27	21	842	489	655	37	59	48	
1997	17	36	27	833	615	717	66	88	78	
1998	19	35	28	958	757	851	49	124	88	

<sup>\*</sup>Rates per 100,000 population 1990.

Source: Louisiana Office of Public Health, STD Control Program

The Louisiana incidence rate of gonorrhea for 1998 was 297 per 100,000 population (Census 1990), and the national rate for 1997 was 123. *The Healthy People 2000 Review 1997* objective for gonorrhea is to reduce the rate to: a) an incidence of no more than 100 cases per 100,000 people, b) an incidence of no more than 650 cases per 100,000 among African-Americans, c) an incidence of no more than 375 per 100,000 persons age 15-19, and d) an incidence of no more than 175 per 100,000 persons age 15-44.

Lo	Gonorrhea Rates* Louisiana, Neighboring States, and the United States, 1993-1997							
State	1993	1994	1995	1996	1997			
Alabama	378	376	345	310	282			
Arkansas	313	281	227	204	175			
Louisiana	314	291	251	222	255			
Mississippi	397	429	353	250	307			
Texas	167	162	165	124	139			
United States	172	165	149	124	123			

<sup>\*</sup>Rates per 100,000 population 1990.

Sources: Louisiana Office of Public Health, STD Control Program

CDC STD Surveillance Report 1997

#### Chlamydia

Infection caused by *Chlamydia trachomatis* is among the most prevalent STDs in the United States. Therapy for these infections is commonly based on the clinical syndrome, or as simultaneous treatment for gonorrhea.

Louisiana had the seventh highest rate of chlamydia nationwide in 1994 and the eleventh in 1995. Then in 1996, Louisiana moved back to the fourth highest rate, and then dropped to the fifth highest in 1997. The total number of cases of chlamydia declined from 11,079 cases in 1993 to 10,727 cases in 1995. Since 1996, disease counts have risen (10,991 in 1996, 11,512 in 1997, and 15,305 in 1998), mainly due to improved laboratory reporting. In 1998, 80% of chlamydia cases occurred in females; 78% of cases occurred in African-Americans; 42% of cases among 15-19 year-olds, and more than 34% of the chlamydia cases occurred among 20-24 year-olds.

The Louisiana chlamydia rate for 1998 was 363 per 100,000 population (1990), and the national rate for 1997 was 207. *The Healthy People 2000 Review 1997* objective for chlamydia trachomatis infections is to reduce the prevalence in women under 25 years of age to no more than 5% (as measured by a decrease in the prevalence of chlamydia infection among family planning clients).



	Chlamydia Rates* by Sex and Race Louisiana, 1994-1998									
		White			Black			Other		
Year	Males	Females	Total	Males	Females	Total	Males	Females	Total	
1994	16	116	67	318	973	668	32	139	85	
1995	12	102	58	251	1011	657	37	176	106	
1996	14	27	21	842	489	655	37	59	48	
1997	17	36	27	833	615	717	66	88	78	
1998	25	125	76	411	1360	919	71	278	174	

<sup>\*</sup>Rates per 100,000 population 1990.

Source: Louisiana Office of Public Health, STD Control Program

Chlamydia Rates* Louisiana, Neighboring States, and the United States, 1993-1997						
State	1993	1994	1995	1996	1997	
Alabama	NR**	12	75	195	204	
Arkansas	29	28	32	27	85	
Louisiana	292	262	254	260	363	
Mississippi	NR**	NR**	34	161	291	
Texas	243	251	238	230	265	
United States	180.4	193.3	190.4	194.5	207.0	

<sup>\*</sup>Rates per 100,000 population

Sources: Louisiana Office of Public Health, STD Control Program

CDC STD Surveillance Report 1997

	Sexually Transmitted Disease Rates* by Parish Louisiana, 1998					
Parish	Early Syphilis (Primary, Secondary, and Early Latent)	Gonorrhea	Chlamydia			
Acadia	0	202	184			
Allen	0	99	193			
Ascension	24	139	194			
Assumption	48	101	436			
Avoyelles	5	54	115			
Beauregard	3	100	203			
Bienville	6	288	532			
Bossier	0	224	371			
Caddo	15	683	675			
Calcasieu	18	287	344			
Caldwell	0	194	285			
Cameron	0	76	97			
Catahoula	0	81	136			
Claiborne	40	230	442			
Concordia	0	149	154			
DeSoto	12	410	576			
East Baton Rouge	31	357	314			
East Carroll	21	185	639			
East Feliciana	0	265	328			
Evangeline	0	162	186			
Franklin	0	183	331			
Grant	0	23	51			

<sup>\*</sup>Rates per 100,000 population 1990

<sup>\*\*</sup>NR=No report





	Sexually Transmitted Disease Rates* by Parish Louisiana, 1998					
Davish	Early Syphilis (Primary, Secondary,		Chlomydia			
Parish Iberia	and Early Latent) 48	Gonorrhea 413	<b>Chlamydia</b> 429			
Iberville	68	161	155			
Jackson	0	236	401			
Jefferson	13	147	218			
Jefferson Davis	7	166	339			
Lafayette	23	273	343			
Lafourche	77	150	212			
LaSalle	0	150	59			
Lincoln	5	357	522			
	4	96	128			
Livingston Madison	32	345	834			
Morehouse	31	476	607			
Natchitoches	11	540	709			
Orleans	40	544	678			
Ouachita	17	464	448			
Plaquemines	8	55	106			
Pointe Coupee	27	115	248			
Rapides	11	232	305			
Red River	11	511	714			
Richland	0	276	504			
Sabine	0	221	446			
St. Bernard	2		105			
St. Charles	0	57	160			
St. Helena	0	94 253	334			
St. James	19	134	259			
St. John		195	305			
St. Landry St. Martin	7 5	370 223	283			
			352			
St. Mary	29	220	318			
St. Tammany	5	93	94			
Tangipahoa	30	429	503			
Tensas	56	239	211			
Terrbonne	62	257	338			
Union	5	213	420			
Vermilion	0	116	188			
Vernon	2	97	247			
Washington	32	266	347			
Webster	0	279	362			
West Baton Rouge	67	175	191			
West Carroll	8	99	240			
West Feliciana	8	155	163			
Winn	0	61	191			
State Total	21	297	363			

\*Rates per 100,000 population 1990

Source: Louisiana Office of Public Health, STD Control Program



### D. HIV/AIDS

#### 1997 Status

In 1997, Louisiana ranked 9<sup>th</sup> among states with the highest AIDS (Acquired Immunodeficiency Syndrome) rates. Among U.S. cities, New Orleans ranked 11<sup>th</sup> and Baton Rouge ranked 19<sup>th</sup> highest.

HIV/AIDS is a growing threat to public health and will continue to make major demands on our health and social service systems for many decades. The lifetime medical cost of caring for a person with AIDS is over \$100,000, most of which is paid by the government. Each year new infections obligate Louisiana to \$150 million in future medical costs.

New therapy with protease inhibitors has been shown to be effective in the treatment of HIV (Human Immunodeficiency Virus) infection. These new therapies have altered the natural history of HIV infection, slowing progression from HIV to AIDS and from AIDS to death for persons infected with HIV. Consequently, an increasing number of persons are living with HIV infection.

In keeping with national trends, Louisiana has seen an increase in HIV/AIDS cases in rural communities, minorities, adolescents and women, and intravenous drug users. The majority of cases continues to be in men who have sex with men.

The gap between the case rate of African-American individuals and white individuals continues to increase. Sixty-nine percent of the total AIDS cases in 1997 occurred in the African-American population. African-Americans accounted for approximately 73% of the HIV cases identified in 1997.

HIV/AIDS has been steadily on the rise in the heterosexual population – HIV/AIDS cases due to heterosexual contact increased from less than 5% in 1990 to 18% in 1997. Despite the increasing number of women infected with HIV, the number of pediatric HIV/AIDS cases (children diagnosed when younger than 13 years of age) has been decreasing in recent years; this decline is credited to improved treatment protocols for HIV-infected pregnant women and increased use of antiretrovirals in this same group.

Persons Living with HIV/AIDS, by Risk Factor Louisiana, 1993-1997							
			Year				
Risk Behavior	1993	1994	1995	1996	1997		
Total Living Cases	7125	8040	8687	9531	10561		
Cases with Specified Risk	6124	6702	6986	7312	7741		
MSM*	63%	60%	57%	55%	54%		
IDU*	21%	22%	23%	24%	24%		
HRH*	12%	14%	15%	17%	18%		
Transf/Hemo*	3%	2%	2%	2%	2%		
Perinatal	1%	1%	2%	2%	2%		
Risk Unknown/Still under							
Investigation	1001	1338	1701	2219	2820		

<sup>\*</sup> MSM: Men who have Sex with Men; IDU: Injection Drug Users (non-MSM);

 $HRH: High\ Risk\ Heterosexual;\ Transf/Hemo:\ Transfusion/Transplant/Hemophiliac$ 

Source: Louisiana Office of Public Health, HIV/AIDS Program



	AIDS Cases and Rates Louisiana, Neighboring States, and United States, 1995-1997								
	19	95	19	96	1997		Cı	ımulative Tota	ls
State	Cases	Rate/	Cases	Rate/	Cases	Rate/	Adults	Children	Total
		100,000		100,000		100,000		less than 13	
Alabama	642	15.1	607	14.2	570	13.2	4,774	63	4,837
Arkansas	277	11.2	267	10.7	242	9.6	2,356	35	2,391
Louisiana	1,087	25	1,463	33.7	1,094	25.1	10,096	112	10,208
Mississippi	442	16.4	450	16.6	347	12.7	3,160	47	3,207
Texas	4,477	23.9	4,799	25.1	4,718	24.3	44,164	337	44,501
United States	74,180	27.8	68,808	25.5	60,634	22.3	633,000	8,086	641,086

Source: Louisiana Office of Public Health, HIV/AIDS Program

# E. CANCER

#### 1991-1995 Status

According to the American Cancer Society, one in every five deaths in the United States is attributable to cancer. More people are surviving cancer now than ever before, but this trend is not true for all groups. Survival rates can vary according to race.

Due to the possibility of natural fluctuations in cancer incidence that take place from year to year, disease counts and rates have been combined to encompass a five-year period. This allows a more reliable examination of the data for identification of cancers that are of most concern in our state.

Five Most Common Cancers Louisiana, 1991-1995								
Туре	Number of Cases	Rate per 100,000						
All Cancers	90,587	393.8						
Lung	16,267	72.5						
Prostate	14,102	60.6						
Breast	12,322	53.9						
Colon & Rectum	10,543	45.0						
Bladder	3,472	14.8						

Source: Louisiana Tumor Registry

The risk for many cancers can be significantly reduced by practicing preventive measures. The National Cancer Institute estimates that tobacco accounts for over 30% of cancers, and dietary factors account for another 35%. For example, most of the lung cancers can be prevented by not smoking, and diets low in fat and high in fiber may help prevent colon, rectal, breast, prostate, and other cancers.

Both preventive measures and early detection are important to cancer death rates. Mammography, clinical breast examination, Pap tests, fecal occult blood tests, and proctosigmoidoscopy (colon exam with lighted scope) make it possible to detect and treat cancers in their early stages and prevent spreading. However, despite modern technology and knowledge, a significant portion of the population at risk for various cancers fails to participate in screening procedures.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> Healthy People 2000: National Health Promotion and Disease Prevention Objectives. United States Department of Health and Human Services. Washington: GPO, 1990.



Cancer is not just one, but many diseases, and is associated with a variety of risk factors. Since 1950, overall cancer mortality rates have changed little, but there have been significant changes in mortality for some age groups and cancers. Several prevalent forms of cancer, such as breast and prostate, can be either prevented or diagnosed early enough to prevent the spread to other organs.

	Five Most Common Cancers in Males Louisiana, 1991-1995									
Whites		Blacks		Total *						
Туре	Rate**	Туре	Rate**	Туре	Number					
All Cancers	490.2	All Cancers	558.8	All Cancers	49,135					
Prostate	136.4	Prostate	176.9	Prostate	14,102					
Lung	103.2	Lung	135.1	Lung	10,565					
Colon & Rectum	53.9	Colon & Rectum	52.8	Colon & Rectum	5,176					
Bladder	30.5	Stomach	19.7	Bladder	2,548					
Non-Hodgkin's		Oral Cavity&		Non-Hogkin's						
Lymphoma	18.4	Pharynx	18.6	Lymphoma	1,690					

<sup>\*</sup> All races combined

<sup>\*\*</sup> Average annual age-adjusted (1970 US) incidence rates per 100,000 population Source: Louisiana Tumor Registry

Five Most Common Cancers in Females Louisiana, 1991-1995								
Whites		Blacks	;	Total *				
Туре	Rate**	Туре	Rate**	Туре	Number			
All Cancers	320.4	All Cancers	308.6	All Cancers	41,452			
Breast	99.2	Breast	86.7	Breast	12,199			
Lung	46.3	Lung	39.7	Lung	5,702			
Colon & Rectum	38.2	Colon & Rectum	40.3	Colon & Rectum	5,367			
Corpus Uteri	13.6	Cervix Uteri	16.1	Corpus Uteri	1,720			
Non-Hodgkin's		Corpus Uteri	13.5	Non-Hodgkin's				
Lymphoma	12.8			Lymphoma	1,525			

<sup>\*</sup> All races combined

Source: Louisiana Tumor Registry

# Background<sup>3</sup>

Breast cancer is the most frequently occurring invasive cancer among women in the United States. It is second only to lung cancer in cancer-related deaths. Nationwide, the death rate from breast cancer has decreased 6.3% between 1991 and 1995. Certain factors—such as family history, exposure to hormones, reproduction issues, and alcohol use—can influence the risk for breast cancer. A debate concerning the association between high-fat diets and increased breast cancer risk has not been resolved. In the past two years, it has been discovered that alterations in two genes can account for up to 90% of inherited breast cancer, which constitutes 5-10% of all breast cancers. Early detection improves the chances of survival, and the National Cancer Institute (NCI) recommended in 1997 that women in their forties or older get screening mammograms on a regular basis, every 1 to 2 years. Women who are at increased risk for breast cancer should seek medical advice about when to begin having mammograms and how often to be screened.

<sup>\*\*</sup> Average annual age-adjusted (1970 US) incidence rates per 100,000 population

<sup>&</sup>lt;sup>3</sup> From National Cancer Institute (NCI) resources and publications. Statistics quoted pertain to the United States.



Cervical cancer (Cervix Uteri) afflicts 15,000 women each year. Increased use of the Pap test has contributed to a 50 percent drop in cervical cancer deaths since 1969. Women who are or have been sexually active, or have reached age 18, should have Pap tests and physical exams regularly.

Colorectal cancer is the second leading cause of cancer death, third among men and third in women. Studies have shown that lifestyle factors may cause colon and rectum cancers. A diet high in fruits, vegetables, and fiber and low in fat appears to reduce the risk of colorectal cancer. Exercise may also lower the risk for this cancer. Although there is no general agreement that screening for colon cancer definitely reduces mortality, annual fecal occult blood tests have proved useful in identifying people who should have further tests to rule out colon cancer and other diseases, especially for those over 50. The potential benefit of regular sigmoidoscopies is currently being investigated by NCI.

Kidney cancer accounts for approximately 2% of all new cancers each year in the United States. Renal cell cancer and renal pelvis cancer account for 70% and 15% respectively, with the remainder being primarily composed of cancer of the ureter (8%) and urethra (4%). While abuse of analgesics has been causally linked to increased risk, and beverages such as coffee, tea, and alcoholic drinks have not been found to be important risk factors, a consistent risk factor has been obesity. Perhaps the best known factor is cigarette smoking. Given the present knowledge about cancers of the kidney, prevention is best achieved by cessation of cigarette smoking. About one-third of renal cell cancers and more than one-half of renal pelvis and ureter cancers could be avoided by eliminating the use of tobacco.

Leukemias together account for 2.5% of the total annual cancer incidence in the United States. and about one-third of cancers in children. Five main types (and an increasing number of subtypes) have been identified. Rates for all types of leukemia are higher among males than among females; for most leukemias, rates are higher among whites than African-Americans.

Lung cancer is the largest single cause of cancer mortality in the United States. It is difficult to detect and hard to treat, and responsible for approximately 30% of all cancer deaths. Smoking is responsible for 87% of lung cancers. The risk of dying of lung cancer is 22 times higher for male smokers and 12 times higher for female smokers than for people who have never smoked. Unfortunately, smoking rates have begun to rise in children for the last several years and in adults more recently.

Melanoma of the skin incidence has increased dramatically over the last several decades. It represents only about 5% of all skin cancers in the United States, but it is responsible for about 75% of all skin cancer deaths. Survival rates have been increasing because of earlier diagnoses, but the total mortality rate continues to increase because of the increase in incidence.

Non-Hodgkin's lymphoma cases have been increasing steadily but inexplicably over the past several decades. A continued, or perhaps larger, increase is anticipated because of AIDS-related cases. The cofactors that predispose AIDS cases to lymphoma need elucidation, and research is needed into other possible causes, such as hair-coloring products, pesticides, nitrates, solvents, other industrial chemicals, and viruses other than HIV.

Oral cavity and pharynx cancer account for approximately 4% of all malignancies. In Americans, oral cancer is 2-3 times more common among males than females. Tobacco and alcohol account for approximately three-fourths of all oral cancers in the United States. Epidemiologic evidence



indicates that smoking and drinking are independent risk factors that produce a synergistic effect when combined. Use of snuff is a primary cause of cancers of the gum and cheek. Although not as prevalent, habitual use of pipes, cigars, and smokeless tobacco is associated with relative risks as great as those for cigarette smoking.

Ovarian cancer strikes more than 22,000 women every year. About 1 in every 70 women in the United States will develop ovarian cancer during her lifetime. Currently, the five-year survival rate is approximately 42%. The NCI is currently conducting a study to determine whether screening can detect the cancer early enough to reduce mortality.

Pancreatic cancer is a 'silent' disease that is asymptomatic until well advanced. Survival is poor; only about 3% of patients are alive five years after diagnosis. In 1990-94 it ranked 13<sup>th</sup> of all cancers in the United States for incidence but was fifth for cancer mortality. Little is known about the etiology, and the only established risk factor is cigarette smoking.

Prostate cancer is the most frequently diagnosed invasive cancer in men, but is a distant second to lung cancer as a cause of death. There is increasing evidence that diet plays an important role in prostate cancer development. Hormones are also being investigated, as well as occupational and other lifestyle factors. The NCI is currently conducting a study to determine whether regular screening with a digital rectal exam and a blood test for prostate-specific antigen (PSA) is beneficial.

Uterine cancer (Corpus Uteri) is the fourth most common cancer among women in the United States and accounts for approximately 9% of cases. However, a limited number of deaths come from this disease, as reflected in a high five-year survival rate of 83%.

Urinary bladder cancer is the fifth most common cancer in the United States, where it is chiefly a disease of white men over 65. The most important known risk factor is cigarette smoking; smokers demonstrate a 2-3 fold increased risk over non-smokers. Workers who are exposed to benzidine and 2-naphthylamine are believed to be at an elevated risk for bladder cancer due to the potent carcinogenicity of these two chemicals. Artificial sweeteners do not appear to increase risk, and coffee drinking appears to have little or no effect.



•	Top Five Cancers		ber of Cases by R ana, 1991-1995	egion and	Parish	
Region/Parish	Total	Louisia	Males		Females	2
Louisiana	All Cancers	90 587	All Cancers	49 135	All Cancers	41,452
	Lung		Prostate	,	Breast	12,199
	Prostate	14,102		10,565		5,702
	Breast	12,322	Colon & Rectum		Colon & Rectum	5,367
	Colon & Rectum		Bladder	·	Corpus Uteri	1,720
	Bladder	3,472	Non-Hodgkin's		Non-Hodgkin's	1,525
			Lymphoma		Lymphoma	·
Region 1	All Cancers	23,543	All Cancers	12,468	All Cancers	11,075
	Lung	4,179	Prostate	3,372	Breast	3,369
	Breast	3,403		2,603	Lung	1,576
	Prostate	3,372	Colon & Rectum	1,324	Colon & Rectum	1,488
	Colon & Rectum	2,812	Bladder		Corpus Uteri	411
	Bladder	1,004	Oral Cavity &	441*	Non-Hodgkin's	379
			Pharynx/		Lymphoma	
			Non-Hodgkin's			
			Lymphoma			
Jefferson	All Cancers		All Cancers		All Cancers	4,609
	Lung		Prostate		Breast	1,425
	Prostate	1,477		1,032		688
	Breast		Colon & Rectum		Colon & Rectum	581
	Colon & Rectum	1,134	Bladder	351	Non-Hodgkin's	189
					Lymphoma	
	Bladder	448	Non-Hodgkin's	191	Ovary	178
			Lymphoma			
Orleans	All Cancers		All Cancers		All Cancers	5,523
	Lung		Prostate		Breast	1,685
	Breast		Lung		Colon & Rectum	773
	Prostate		Colon & Rectum		Lung	734
	Colon & Rectum		Bladder		Corpus Uteri	218
	Bladder		Skin Melanoma		Cervix Uteri	200
Plaquemines	All Cancers		All Cancers		All Cancers	179
	Lung		Lung		Breast	54
	Prostate		Prostate		Lung	30
	Breast		Colon & Rectum		Colon & Rectum	21
	Colon & Rectum		Bladder		Stomach	9 6
	Bladder	20	Oral Cavity & Pharynx	15	Corpus Uteri	ь
St. Bernard	All Cancers	1,626	All Cancers	862	All Cancers	764
	Lung		Lung		Breast	205
	Colon & Rectum		Prostate		Lung	124
	Breast		Colon & Rectum		Colon & Rectum	113
	Prostate	192	Bladder	72	Non-Hodgkin's	32
					Lymphoma	
	Bladder	88	Kidney & Renal Pelvis/ Non-Hodgkin's	32*	Corpus Uteri	28
			Lymphoma			

<sup>\*</sup>Number of cases is the same at each site



	Top Five Cancers			Region and	Parish	
Denier / Denie k	Total	Louisia	ana, 1991-1995		F	
Region/Parish	Total	40.004	Males	0.004	Females	
Region 2	All Cancers		All Cancers		All Cancers	4,830
	Prostate		Prostate		Breast	1,509
	Lung	1,710		1,071		639
	Breast		Colon & Rectum		Colon & Rectum	621
	Colon & Rectum	,	Bladder		Corpus Uteri	202
	Bladder	412	Non-Hodgkin's Lymphoma	215	Ovary	172
Ascension	All Cancers	1,109	All Cancers	653	All Cancers	456
	Prostate	207	Prostate	207	Breast	150
	Lung		Lung	117	Colon & Rectum	62
	Breast		Colon & Rectum		Lung	56
	Colon & Rectum		Bladder		Ovary	21
	Bladder		Leukemias		Bladder	15
East Baton Rouge	All Cancers	7,524	All Cancers	4,120	All Cancers	3,404
	Prostate	1,474	Prostate	1,474	Breast	1,074
	Lung	1,185	Lung	716	Lung	469
	Breast		Colon & Rectum		Colon & Rectum	441
	Colon & Rectum		Bladder		Corpus Uteri	140
	Bladder		Non-Hodgkin's Lymphoma		Ovary	117
East Feliciana	All Cancers	439	All Cancers	273	All Cancers	166
	Prostate		Prostate		Breast	55
	Lung		Lung		Lung	14
	Breast		Colon & Rectum		Colon & Rectum	13
	Colon & Rectum		Bladder /		Corpus Uteri	10
	Colon & Nectum	43	Non-Hodgkin's Lymphoma	15	Corpus oteri	10
	Bladder/ Non-Hodgkin's Lymphoma	19	Larynx	9	Pancreas	7
Iberville	All Cancers	704	All Cancers	379	All Cancers	325
	Prostate	121	Prostate	121	Breast	101
	Breast		Lung		Lung	41
	Lung	90	Colon & Rectum		Colon & Rectum	38
	Colon & Rectum		Non-Hodgkin's Lymphoma		Cervix Uteri	25
	Kidney & Renal Pelvis	28	Bladder	19	Kidney & Renal Pelvis/ Pancreas	13*
Pointe Coupee	All Cancers	510	All Cancers	291	All Cancers	219
	Prostate		Prostate		Breast	62
	Lung		Lung		Colon & Rectum	37
	Breast		Colon & Rectum		Lung	19
	Colon & Rectum		Bladder/		Corpus Uteri	14
	Join a Rootuiii	01	Oral Cavity & Pharynx	13	30.540 0.011	14
	Non-Hodgkin's Lymphoma	18	Leukemias	12	Non-Hodgkin's Lymphoma	11

<sup>\*</sup>Number of cases is the same at each site



	Top Five Cancers		ber of Cases by R ana, 1991-1995	Region and	Parish	
Region/Parish	Total	Louioic	Males		Female	s .
West Baton Rouge	All Cancers	424	All Cancers	237	All Cancers	187
	Prostate		Prostate		Breast	50
	Lung		Lung		Lung	27
	Breast		Colon & Rectum		Colon & Rectum	22
	Colon & Rectum	47	Pancreas/	14*	Pancreas	10
			Bladder			
	Pancreas	24	Non-Hodgkin's	12	Corpus Uteri	9
			Lymphoma		·	
West Feliciana	All Cancers	211	All Cancers	138	All Cancers	73
	Lung	46	Prostate	39	Breast	17
	Prostate	39	Lung	33	Lung	13
	Colon & Rectum	18	Colon & Rectum	10	Colon & Rectum	8
	Breast	17	Oral Cavity &	7*	Ovary/	4*
			Pharynx/		Corpus Uteri	
			Non-Hodgkin's			
			Lymphoma			
	Non-Hodgkin's	10	Pancreas/	6*	Pancreas/	3*
	Lymphoma		Bladder		Kidney & Renal	
					Pelvis/	
					Brain/	
					Non-Hodgkin's	
					Lymphoma	
Region 3	All Cancers	6,495	All Cancers	3,619	All Cancers	2,876
	Lung	1,189	Prostate	946	Breast	873
	Prostate		Lung	832	Colon & Rectum	358
	Breast	881	Colon & Rectum	418	Lung	357
	Colon & Rectum	776	Bladder		Corpus Uteri	116
	Bladder	265	Non-Hodgkin's	151	Non-Hodgkin's	102
			Lymphoma		Lymphoma	
Assumption	All Cancers		All Cancers		All Cancers	183
	Lung	96	Prostate /	67*	Breast	64
			Lung			
	Prostate		Colon & Rectum	25	Lung	29
	Breast		Bladder		Colon & Rectum	18
	Colon & Rectum		Pancreas		Cervix Uteri	7
	Bladder	20	Oral Cavity &	7*	Pancreas/	6*
			Pharynx/		Non-Hodgkin's	
			Multiple Myeloma		Lymphoma	
Lafourche	All Cancers		All Cancers		All Cancers	667
	Lung	288	Prostate /	196	Breast	181
			Lung			
	Prostate		Colon & Rectum		Lung	92
	Breast		Bladder		Colon & Rectum	83
	Colon & Rectum	181	Non-Hodgkin's	34	Non-Hodgkin's	36
			Lymphoma		Lymphoma	
	Non-Hodgkin's	70	Stomach	21	Corpus Uteri	34
	Lymphoma					

<sup>\*</sup>Number of cases is the same at each site



	Top Five Cancers		ber of Cases by F ana, 1991-1995	Region and	Parish	
Region/Parish	Total	Louion	Males		Female	s
St. Charles	All Cancers	758	All Cancers	393	All Cancers	365
	Breast		Prostate		Breast	123
	Lung		Lung		Colon & Rectum	44
	Prostate		Colon & Rectum		Lung	40
	Colon & Rectum		Non-Hodgkin's		Kidney & Renal	12,
		•	Lymphoma		Pelvis/	
			2,		Bladder/	
					Ovary/	
					Pancreas/	
					Non-Hogdkin's	
					Lymphoma	
	Non-Hodgkin's	29	Oral Cavity &	15	Corpus Uteri	11
	Lymphoma	20	Pharynx	'`	Corpus Oteri	· '
St. James	All Cancers	431	All Cancers	239	All Cancers	192
ot. barrios	Prostate		Prostate		Breast	65
	Lung		Lung		Colon & Rectum	22
	Breast		Colon & Rectum		Lung	17
	Colon & Rectum		Bladder		Corpus Uteri	12
	Bladder		Non-Hodgkin's		Kidney & Renal	10
	Bladdol		Lymphoma	'-	Pelvis	
St. John	All Cancers	647	All Cancers	357	All Cancers	290
	Lung		Prostate		Breast	90
	Prostate		Lung		Colon & Rectum	37
	Breast		Colon & Rectum		Lung	32
	Colon & Rectum		Non-Hodgkin's		Stomach /	10*
		. •	Lymphoma		Corpus Uteri	. •
	Non-Hodgkin's	24	Oral Cavity &	13*	Cervix Uteri/	9*
	Lymphoma		Pharynx/		Non-Hodgkin's	
	Lyp.i.o.i.i.a		Bladder		Lymphoma	
St. Mary	All Cancers	1.100	All Cancers	654	All Cancers	446
Ca. Mary	Lung		Prostate		Breast	114
	Prostate		Lung		Colon & Rectum	64
	Colon & Rectum		Colon & Rectum		Lung	60
	Breast		Bladder		Ovary /	15*
					Bladder/	
					Leukemias	
	Bladder	49	Leukemias	28	Cervix Uteri/	14*
					Corpus Uteri	
Terrebonne	All Cancers	1.683	All Cancers	950	All Cancers	733
	Lung		Lung		Breast	236
	Breast		Prostate		Colon & Rectum	90
	Colon & Rectum		Colon & Rectum		Lung	87
	Prostate		Bladder		Corpus Uteri	33
	Non-Hodgkin's		Non-Hodgkin's		Ovary	27
	Lymphoma		Lymphoma		<del> ,</del>	
	_,		J	I .	1	1

<sup>\*</sup>Number of cases is the same at each site



	Top Five Cancers		ber of Cases by F ana, 1991-1995	Region and	Parish	
Region/Parish	Total		Males		Female	s
Region 4	All Cancers	10,538	All Cancers	5,533	All Cancers	5,005
	Lung	2,014	Lung	1,344	Breast	1,450
	Breast		Prostate	1,297	Lung	670
	Prostate	1,297	Colon & Rectum	587	Colon & Rectum	616
	Colon & Rectum	1,203	Bladder	270	Non-Hodgkin's Lymphoma	208
	Non-Hodgkin's	417	Oral Cavity &	223	Pancreas	199
	Lymphoma		Pharynx			
Acadia	All Cancers	1,303	All Cancers	676	All Cancers	627
	Lung		Lung	167	Breast	180
	Breast		Prostate		Colon & Rectum	93
	Colon & Rectum		Colon & Rectum		Lung	86
	Prostate		Oral Cavity &		Leukemias	28
			Pharynx			
	Non-Hodgkin's Lymphoma	45	Bladder	33	Pancreas	22
Evangeline	All Cancers	756	All Cancers	406	All Cancers	350
	Lung		Lung		Breast	80
	Colon & Rectum		Prostate		Colon & Rectum	56
	Breast		Colon & Rectum		Lung	42
	Prostate		Pancreas		Pancreas	16
	Pancreas		Bladder		Cervix Uteri/	14*
Iberia	All Cancers	1 466	All Cancers	700	Corpus Uteri All Cancers	678
IDEIIA			Prostate		Breast	186
	Lung					
	Prostate		Lung Colon & Rectum		Lung Colon & Rectum	110 70
	Breast					
	Colon & Rectum		Bladder		Corpus Uteri	30 28
	Bladder		Oral Cavity & Pharynx		Pancreas	
Lafayette	All Cancers	,	All Cancers		All Cancers	1,551
	Lung		Lung		Breast	515
	Breast		Prostate		Lung	195
	Prostate		Colon & Rectum		Colon & Rectum	153
	Colon & Rectum	309	Bladder	82	Non-Hodgkin's Lymphoma	68
	Non-Hodgkin's	135	Non-Hodgkin's	67	Pancreas	61
	Lymphoma		Lymphoma			
St. Landry	All Cancers	1,870	All Cancers	1,012	All Cancers	858
	Lung	376	Prostate		Breast	229
	Prostate		Lung	259	Colon & Rectum	122
	Breast	232	Colon & Rectum		Lung	117
	Colon & Rectum	229	Bladder	55	Non-Hodgkin's Lymphoma	39
	Bladder	70	Oral Cavity & Pharynx	36	Pancreas	36

<sup>\*</sup>Number of cases is the same at each site



	Top Five Cancers		ber of Cases by R ana, 1991-1995	Region and	Parish	
Region/Parish	Total		Males		Female	s
St. Martin	All Cancers	845	All Cancers	445	All Cancers	400
	Lung		Lung	107	Breast	115
	Breast	115	Prostate	101	Colon & Rectum	51
	Prostate	101	Colon & Rectum	47	Lung	48
	Colon & Rectum	98	Bladder /	17*	Non-Hodgkin's	20
			Non-Hodgkin's		Lymphoma	
			Lymphoma			
	Non-Hodgkin's	37	Stomach	16	Corpus Uteri	19
	Lymphoma					
Vermilion	All Cancers	1,206	All Cancers	665	All Cancers	541
	Lung	225	Prostate	176	Breast	145
	Prostate		Lung		Lung	72
	Breast	145	Colon & Rectum		Colon & Rectum	71
	Colon & Rectum	135	Oral Cavity &	30	Non-Hodgkin's	34
			Pharynx		Lymphoma	
	Non-Hodgkin's	62	Non-Hodgkin's	28	Corpus Uteri	23
	Lymphoma		Lymphoma			
Region 5	All Cancers	5,628	All Cancers		All Cancers	2,608
	Lung	1,077	Prostate		Breast	730
	Prostate		Lung		Lung	417
	Breast	739	Colon & Rectum	358	Colon & Rectum	316
	Colon & Rectum		Bladder		Corpus Uteri	126
	Bladder	236	Non-Hodgkin's	109	Non-Hodgkin's	108
			Lymphoma/		Lymphoma	
			Skin Melanomas			
Allen	All Cancers		All Cancers		All Cancers	215
	Lung		Lung		Breast	53
	Prostate		Prostate		Lung	34
	Breast		Colon & Rectum		Colon & Rectum	23
	Colon & Rectum	48	Oral Cavity &	13	Cervix Uteri /	11*
			Pharynx		Corpus Uteri	
	Skin Melanomas		Bladder		Skin Melanomas	10
Beauregard	All Cancers		All Cancers		All Cancers	265
	Lung		Prostate		Breast	72
	Prostate		Lung		Lung	39
	Breast		Colon & Rectum		Colon & Rectum	32
	Colon & Rectum	63	Skin Melanomas/	14*	Cervix Uteri	15
			Non-Hodgkin's			
			Lymphoma			
	Non-Hodgkin's	24	Bladder/	11*	Corpus Uteri	13
	Lymphoma		Leukemias			
Calcasieu	All Cancers		All Cancers		All Cancers	1,751
	Lung		Prostate		Breast	488
	Prostate		Lung		Lung	284
	Breast		Colon & Rectum		Colon & Rectum	224
	Colon & Rectum		Bladder		Corpus Uteri	79
	Bladder	174	Skin Melanomas	79	Non-Hodgkin's	73

<sup>\*</sup>Number of cases is the same at each site



	Top Five Cancers		ber of Cases by R ana, 1991-1995	Region and	Parish	
Region/Parish	Total	Louioic	Males Females			
Cameron	All Cancers	155	All Cancers	90	All Cancers	65
	Lung		Prostate		Breast	27
	Breast		Lung		Lung	8
	Prostate	22	Colon & Rectum		Colon & Rectum	6
	Colon & Rectum		Bladder		Kidney & Renal	5
					Pelvis	
	Kidney & Renal	8*	Non-Hodgkin's	4*	Non-Hodgkin's	4
	Pelvis/		Lymphoma/		Lymphoma	
	Non-Hodgkin's		Leukemias/		, ,	
	Lymphoma		Oral Cavity &			
			Pharynx			
Jefferson Davis	All Cancers	659	All Cancers	347	All Cancers	312
	Lung	138	Prostate	89	Breast	90
	Breast	92	Lung	86	Lung	52
	Prostate	89	Colon & Rectum	42	Colon & Rectum	31
	Colon & Rectum	73	Bladder	21	Corpus Uteri	21
	Non-Hodgkin's	27	Oral Cavity &	13	Non-Hodgkin's	15
	Lymphoma		Pharynx		Lymphoma	
Region 6	All Cancers	5,945	All Cancers	3,304	All Cancers	2,641
	Lung	1,130	Prostate	877	Breast	676
	Prostate	877	Lung	752	Lung	378
	Colon & Rectum	735	Colon & Rectum	369	Colon & Rectum	366
	Breast	686	Bladder	177	Corpus Uteri	110
	Bladder	242	Non-Hodgkin's		Non-Hodgkin's	104
			Lymphoma		Lymphoma	
Avoyelles	All Cancers	857	All Cancers	493	All Cancers	364
	Lung	172	Prostate	128	Breast	87
	Prostate		Lung	123	Colon & Rectum	55
	Colon & Rectum	115	Colon & Rectum	60	Lung	49
	Breast	88	Bladder	20	Non-Hodgkin's	15
					Lymphoma	
	Non-Hodgkin's	33	Non-Hodgkin's	18	Cervix Uteri	14
	Lymphoma		Lymphoma			
Catahoula	All Cancers	225	All Cancers		All Cancers	85
	Prostate		Prostate		Breast	22
	Lung		Lung		Colon & Rectum	12
	Colon & Rectum/	23*	Colon & Rectum	11	Lung	11
	Breast					
	Bladder		Bladder		Corpus Uteri	7
	Pancreas /	7*	Stomach/	4*	Ovary	6
	Corpus Uteri		Leukemias			
Concordia	All Cancers		All Cancers		All Cancers	159
	Lung		Lung		Breast	33
	Colon & Rectum		Prostate		Lung	29
	Breast		Colon & Rectum		Colon & Rectum	22
	Prostate		Pancreas		Pancreas	12
	Pancreas	19	Oral Cavity &	6*	Corpus Uteri	9
			Pharynx/			
			Bladder			

<sup>\*</sup>Number of cases is the same at each site



Top Five Cancers and Number of Cases by Region and Parish Louisiana, 1991-1995							
Region/Parish	Total		Males		Females		
Grant	All Cancers	411	All Cancers	217	All Cancers	194	
	Lung	79	Prostate	63	Breast	47	
	Prostate	63	Lung	50	Colon & Rectum	32	
	Colon & Rectum	53	Colon & Rectum	21	Lung	29	
	Breast	47	Non-Hodgkin's	11	Corpus Uteri	11	
			Lymphoma				
	Pancreas/	17*	Pancreas	10	Ovary	9	
	Non-Hodgkin's						
	Lymphoma						
LaSalle	All Cancers	379	All Cancers	221	All Cancers	158	
	Lung	66	Prostate	54	Breast	38	
	Prostate	54	Lung	45	Lung	21	
	Colon & Rectum	43	Colon & Rectum	27	Colon & Rectum	16	
	Breast	38	Bladder	18	Non-Hodgkin's	10	
					Lymphoma		
	Bladder/	22*	Non-Hodgkin's	12	Cervix Uteri	7	
	Non-Hodgkin's		Lymphoma				
	Lymphoma		, ,				
Rapides	All Cancers	2,651	All Cancers	1,478	All Cancers	1,173	
	Lung	472	Prostate	409	Breast	326	
	Prostate	409	Lung	317	Colon & Rectum	161	
	Colon & Rectum		Colon & Rectum		Lung	155	
	Breast		Bladder		Corpus Uteri	57	
	Bladder		Oral Cavity &		Non-Hodgkin's	50	
			Pharynx		Lymphoma		
Vernon	All Cancers	707	All Cancers	382	All Cancers	325	
	Lung		Lung		Breast	84	
	Breast		Prostate		Lung	52	
	Colon & Rectum/		Colon & Rectum		Colon & Rectum	48	
	Prostate						
	Bladder	34	Bladder	27	Ovary	13	
	Non-Hodgkin's		Non-Hodgkin's		Skin Melanomas/	12*	
	Lymphoma		Lymphoma		Non-Hodakin's		
	' '		, '		Lymphoma		
Winn	All Cancers	419	All Cancers	236	All Cancers	183	
	Lung		Prostate		Breast	39	
	Prostate		Lung		Lung	32	
	Colon & Rectum		Colon & Rectum		Colon & Rectum	20	
	Breast		Bladder		Ovary	12	
	Skin Melanomas		Kidney & Renal		Cervix Uteri	11	
		••	Pelvis/		- ,		
			Skin Melanomas				

<sup>\*</sup>Number of cases is the same at each site



	Top Five Cancers		ber of Cases by R ana, 1991-1995	Region and	Parish	
Region/Parish	Total		Males		Female	 S
Region 7	All Cancers	12,258	All Cancers	6,703	All Cancers	5,555
	Prostate	2,245	Prostate	2,245	Breast	1,587
	Lung	2,090	Lung	1,377	Colon & Rectum	752
	Breast		Colon & Rectum		Lung	713
	Colon & Rectum		Bladder		Corpus Uteri	280
	Bladder	407	Oral Cavity &		Ovary	214
			Pharynx		,	
Bienville	All Cancers	495	All Cancers	275	All Cancers	220
	Prostate		Prostate		Breast	50
	Lung		Lung		Colon & Rectum	35
	Colon & Rectum		Colon & Rectum		Lung	24
	Breast		Leukemias		Cervix Uteri	13
	Leukemias		Oral Cavity &		Corpus Uteri	11
	Louitonnao	• • • • • • • • • • • • • • • • • • • •	Pharynx/	•	Corpus Cion	• • •
			Larynx/			
			Skin Melanomas/			
			Kidney & Renal			
			Pelvis			
Bossier	All Cancers	1 726	All Cancers	057	All Cancers	779
DOSSIEI			Prostate		Breast	223
	Lung Prostate		Lung		Lung	115
			Colon & Rectum		Colon & Rectum	
	Breast Colon & Rectum					99
			Bladder		Ovary	42 34
	Bladder	01	Oral Cavity &	33	Corpus Uteri	34
			Pharynx/			
			Non-Hodgkin's			
Cadda	All Consors	C 04E	Lymphoma	2 220	All Company	2.000
Caddo	All Cancers		All Cancers		All Cancers	2,806
	Prostate		Prostate	,	Breast	843
	Lung		Lung		Colon & Rectum	386
	Breast		Colon & Rectum		Lung	347
	Colon & Rectum		Bladder		Corpus Uteri	141
	Non-Hodgkin's	203	Oral Cavity &	122	Non-Hodgkin's	108
Ole ile e e e	Lymphoma	40.4	Pharynx	000	Lymphoma	400
Claiborne	All Cancers		All Cancers		All Cancers	192
	Prostate		Prostate		Breast	65
	Lung		Lung		Lung	31
	Breast		Colon & Rectum		Colon & Rectum	25
	Colon & Rectum	49	Pancreas	15	Corpus Uteri/	7*
					Non-Hodgkin's	
	Danis	4.0	Nico II. J. C. C.		Lymphoma	<b>-</b> .t.
	Pancreas	16	Non-Hodgkin's	7*	Skin Melanomas/	5*
			Lymphoma/		Ovary	
D 0 /	1411.0		Leukemias		A II O	
DeSoto	All Cancers		All Cancers		All Cancers	277
	Prostate		Prostate		Breast	73
	Lung		Lung		Colon & Rectum	40
	Breast		Colon & Rectum		Lung	31
	Colon & Rectum	68	Bladder	18	Corpus Uteri/	12*
					Stomach	
	Bladder	28	Leukemias	11	Cervix Uteri	11

<sup>\*</sup>Number of cases is the same at each site



	Top Five Cancers		ber of Cases by R ana, 1991-1995	Region and	Parish	
Region/Parish	Total		Males		Females	 }
Natchitoches	All Cancers	784	All Cancers	404	All Cancers	380
	Lung		Prostate		Breast	97
	Prostate		Lung		Lung	55
	Breast		Colon & Rectum		Colon & Rectum	53
	Colon & Rectum		Bladder		Corpus Uteri	22
	Bladder		Oral Cavity & Pharynx		Ovary	15
Red River	All Cancers	235	All Cancers	131	All Cancers	104
	Prostate		Prostate		Breast	26
	Colon & Rectum		Lung		Colon & Rectum	18
	Lung		Colon & Rectum		Lung	9
	Breast		Skin Melanomas		Cervix Uteri	6
	Skin Melanomas		Stomach / Pancreas		Non-Hodgkin's Lymphoma	5
Sabine	All Cancers	627	All Cancers	372	All Cancers	255
Cabino	Prostate		Prostate		Breast	57
	Lung		Lung		Colon & Rectum	36
	Colon & Rectum		Colon & Rectum		Lung	30
	Breast		Bladder		Corpus Uteri	19
	Bladder		Skin Melanomas		Cervix Uteri / Non-Hodgkin's Lymphoma	12*
Webster	All Cancers	1.277	All Cancers	735	All Cancers	542
	Prostate	,	Prostate		Breast	153
	Lung		Lung		Lung	71
	Breast		Colon & Rectum		Colon & Rectum	60
	Colon & Rectum		Bladder		Corpus Uteri	30
	Non-Hodgkin's		Skin Melanomas		Non-Hodgkin's	29
	Lymphoma				Lymphoma	
Region 8	All Cancers	7,998	All Cancers	4,383	All Cancers	3,615
	Lung		Prostate	1,317	Breast	1,041
	Prostate	1,317	Lung	980	Lung	482
	Breast		Colon & Rectum		Colon & Rectum	457
	Colon & Rectum		Bladder		Corpus Uteri	164
	Bladder	253	Oral Cavity & Pharynx	153	Pancreas / Non-Hodgkin's Lymphoma	117*
Caldwell	All Cancers	250	All Cancers	136	All Cancers	114
	Lung		Lung		Breast	32
	Colon & Rectum		Prostate		Colon & Rectum	17
	Breast		Colon & Rectum		Lung	10
	Prostate		Oral Cavity & Pharynx/ Pancreas/ Leukemias		Cervix Uteri	7
	Pancreas / Leukemias	12*	Brain	5	Pancreas/ Non-Hodgkin's Lymphoma/ Leukemias	5*

<sup>\*</sup>Number of cases is the same at each site



	Top Five Cancers		ber of Cases by R ana, 1991-1995	Region and	Parish	
Region/Parish	Total		Males		Females	 S
East Carroll	All Cancers	239	All Cancers	135	All Cancers	104
	Lung	53	Prostate	48	Breast	31
	Prostate	48	Lung	34	Lung	19
	Breast	31	Colon & Rectum	12	Colon & Rectum	15
	Colon & Rectum	27	Oral Cavity &	7	Kidney & Renal	6*
			Pharynx		Pelvis	
	Oral Cavity &	8*	Skin Melanomas	6	Cervix Uteri	4
	Pharynx/					
	Skin Melanomas					
Franklin	All Cancers		All Cancers		All Cancers	246
	Lung		Prostate		Breast	64
	Prostate		Lung		Colon & Rectum	27
	Breast		Colon & Rectum		Lung	26
	Colon & Rectum	45	Kidney & Renal	11*	Pancreas	15
			Pelvis/			
			Bladder/			
			Leukemias			
	Pancreas	23	Stomach	9	Corpus Uteri /	11*
					Skin Melanomas	
Jackson	All Cancers		All Cancers		All Cancers	216
	Prostate		Prostate		Breast	55
	Lung	78	Lung	54	Lung /	24*
					Colon & Rectum	
	Colon & Rectum/	56*	Colon & Rectum	32	Cervix Uteri	12
	Breast					
	Skin Melanomas		Skin Melanomas		Corpus Uteri	11
	Non-Hodgkin's	14	Bladder	11	Skin Melanomas	9
	Lymphoma					
Lincoln	All Cancers		All Cancers		All Cancers	391
	Prostate		Prostate		Breast	132
	Lung		Lung		Lung	53
	Breast		Colon & Rectum		Colon & Rectum	40
	Colon & Rectum		Skin Melanomas		Skin Melanomas	25
	Skin Melanomas		Bladder		Corpus Uteri	22
Madison	All Cancers		All Cancers		All Cancers	98
	Lung		Prostate		Breast	22
	Prostate		Lung		Colon & Rectum	21
	Colon & Rectum		Colon & Rectum		Lung	15
	Breast	22	Esophagus/	7*	Ovary/	5*
			Stomach		Kidney & Renal	
					Pelvis	
	Stomach	11	Pancreas/	4*	Stomach	4
			Bladder/			
	1		Leukemias		411.0	
Morehouse	All Cancers		All Cancers		All Cancers	290
	Prostate		Prostate .		Breast	86
	Lung		Lung		Colon & Rectum	38
	Breast		Colon & Rectum	40	Lung	30
	Colon & Rectum		Bladder		Corpus Uteri	16
	Bladder	35	Oral Cavity &	] 1*	Pancreas	14
			Pharynx/			
			Pancreas			

\*Number of cases is the same at each site



Top Five Cancers and Number of Cases by Region and Parish Louisiana, 1991-1995						
Region/Parish	Total		Males		Females	5
Ouachita	All Cancers	3,066	All Cancers	1,611	All Cancers	1,455
	Lung	534	Prostate	466	Breast	457
	Prostate	466	Lung	333	Lung	201
	Breast	461	Colon & Rectum	166	Colon & Rectum	181
	Colon & Rectum	347	Bladder	72	Corpus Uteri	58
	Non-Hodgkin's	102	Oral Cavity &	56	Cervix Uteri	50
	Lymphoma		Pharynx			
Richland	All Cancers	594	All Cancers	343	All Cancers	251
	Lung		Prostate		Breast	62
	Prostate		Lung		Lung	46
	Colon & Rectum/		Colon & Rectum	34	Colon & Rectum	29
	Breast					
	Leukemias	20	Oral Cavity &	14*	Corpus Uteri	14
			Pharynx/			
			Kidney & Renal			
			Pelvis			
	Skin Melanomas/	18*	Bladder/	12*	Cervix Uteri	11
	Kidney & Renal		Leukemias			
	Pelvis/					
	Bladder					
Tensas	All Cancers	131	All Cancers	68	All Cancers	63
	Lung		Lung		Colon & Rectum	11
	Colon & Rectum		Prostate		Breast	10
	Prostate		Colon & Rectum		Lung	8
	Breast		Pancreas/		Corpus Uteri	7
			Bladder		'	
	Corpus Uteri	7			Cervix Uteri	4
Union	All Cancers	570	All Cancers	315	All Cancers	255
oo.	Lung		Prostate		Breast	62
	Prostate		Lung		Colon & Rectum	37
	Breast		Colon & Rectum		Lung	30
	Colon & Rectum		Oral Cavity &		Corpus Uteri	11
	Colon a rectain	04	Pharynx	10	oorpus otom	
	Oral Cavity &	19	Bladder	10	Ovary /	10*
	Pharynx	10	Diaddel	10	Non-Hodgkin's	10
	1 Harytix				Lymphoma/	
					Leukemias	
West Carroll	All Cancers	3∆8	All Cancers	216	All Cancers	132
west Carroll	Prostate		Prostate		Breast	28
	Lung		Lung		Lung	20
	Colon & Rectum		Colon & Rectum	22	Colon & Rectum	17
	Breast		Bladder		Leukemias	8
	Non-Hodgkin's		Oral Cavity &		Brain	7
	_	13	_	9	ומווו	1
	Lymphoma		Pharynx			

<sup>\*</sup>Number of cases is the same at each site



Top Five Cancers and Number of Cases by Region and Parish Louisiana, 1991-1995							
Region/Parish	Total		Males		Females		
Region 9	All Cancers	7,261	All Cancers	4,014	All Cancers	3,247	
3 -	Lung		Prostate		Breast	964	
	Prostate		Lung	•	Lung	470	
	Breast		Colon & Rectum		Colon & Rectum	393	
	Colon & Rectum		Bladder		Non-Hodgkin's	133	
	Colon a reodam	702	Bladdol	2.0	Lymphoma	100	
	Bladder	288	Non-Hodgkin's	148	Ovary	131	
	Bladdel	200	Lymphoma	140	Ovary	101	
Livingston	All Cancers	1 304	All Cancers	752	All Cancers	552	
Livingston	Lung		Prostate		Breast	159	
	Prostate		Lung		Lung	93	
	Breast		Colon & Rectum		Colon & Rectum	64	
	Colon & Rectum		Bladder		Non-Hodgkin's	21	
	Colon & Rectum	131	biaddei	41	•	21	
	Diaddan	Γ 4	Nam Hadahinia	00	Lymphoma	20	
	Bladder	54	Non-Hodgkin's	23	Ovary	20	
0	411.0	100	Lymphoma		A II . O		
St. Helena	All Cancers		All Cancers		All Cancers	51	
	Lung		Prostate		Breast	17	
	Prostate		Lung		Colon & Rectum	7	
	Breast		Colon & Rectum		Lung	6	
	Colon & Rectum	14	Esophagus /	3*	Corpus Uteri	4	
			Leukemias				
	Stomach /	4*	Oral Cavity &	2*	Cervix Uteri	3	
	Corpus Uteri/		Pharynx/				
	Leukemias		Stomach/				
			Liver				
St. Tammany	All Cancers	2,905	All Cancers	1,582	All Cancers	1,323	
	Lung	572	Prostate	430	Breast	422	
	Prostate /	430	Lung	361	Lung	211	
	Breast						
	Colon & Rectum	303	Colon & Rectum	161	Colon & Rectum	142	
	Bladder	135	Bladder	101	Ovary	56	
	Non-Hodgkin's	130	Non-Hodgkin's	77	Non-Hodgkin's	53	
	Lymphoma		Lymphoma		Lyphoma		
Tangipahoa	All Cancers	1,856	All Cancers	1,008	All Cancers	848	
01	Lung		Prostate	298	Breast	237	
	Prostate		Lung		Colon & Rectum	116	
	Breast		Colon & Rectum		Lung	107	
	Colon & Rectum		Bladder		Non-Hodgkin's	36	
	Colon a reodam	210	Bladdol	0.	Lymphoma	00	
	Bladder	67	Oral Cavity &	30	Pancreas /	34*	
	Bladdol	01	Pharynx	00	Ovary	0.	
Washington	All Cancers	1 064	All Cancers	501	All Cancers	473	
vvasnington	Lung		Prostate		Breast	129	
	Prostate		Lung		Colon & Rectum	64	
	Breast		Colon & Rectum		Lung	53	
					Pancreas /	23*	
	Colon & Rectum	125	Bladder	24		23"	
	Non-Hadalint	40	Nam Hadaldata	0.1	Corpus Uteri		
	Non-Hodgkin's	43	Non-Hodgkin's	21	Non-Hodgkin's	22	
	Lymphoma		Lymphoma		Lymphoma		

\*Number of cases is the same at each site

Source: Louisiana Tumor Registry



# F. CHRONIC DISEASE - BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS)

Behavior-related illness and injury, such as heart disease, cancer, cerebrovascular disease, and motor vehicle-related injuries result in the premature death or compromised lifestyle of thousands of Louisiana residents each year. Most of the adults in the state report that they engage in at least one health behavior that places them at an increased, but avoidable, risk for these outcomes.

Prevention of illness before it occurs is a central aspect of the public health system. Achievement of this goal requires an understanding of the risk factors that lead to illness, and of the behaviors that put an individual at risk of illness. The goal of primary prevention programs is to reduce or prevent initiation of behaviors, such as smoking, alcohol use, sedentary lifestyles, and poor eating habits, known to be associated with chronic disease. The goal of secondary prevention is to reduce or delay chronic illnesses and deaths through the early identification and treatment of persons with early signs/symptoms of diseases, by promoting the use of scientifically validated screening exams for early detection of certain cancers, hypertension, breast cancer, and diabetes.

To collect information needed by its primary and secondary prevention programs, the Louisiana Department of Health and Hospitals (DHH), Office of Public Health, Chronic Disease Control Program, in cooperation with the Centers for Disease Control and Prevention (CDC), began in 1991 to participate in the Behavioral Risk Factor Surveillance System (BRFSS). The purpose of the BRFSS is to provide state-level prevalence data on health-related behaviors and attitudes. Information collected in the survey is being used in the state's ongoing effort to plan, develop, and evaluate health promotion and disease prevention programs. Data from the BRFSS are also used to monitor progress toward achieving the national objectives of the Healthy People 2000 program of the United States Department of Health and Hospitals (USDHHS, 1990).

Adults aged 18 years and older who do not live in institutions such as geriatric centers, hospitals, jail, or prison may be included in the BRFSS. Some survey questions are asked each year and some are asked on alternating years. The following information, representing non-institutionalized Louisiana adult residents aged 18 and older, are from the most recent BRFSS that collected the specified data.

### **BRFSS: Tobacco Use**

Cigarette Smoking

Each year smoking kills more people than alcohol, motor vehicle injuries, suicide, AIDS, homicide, illegal drugs, and fires combined. Cigarette smoking is the leading cause of preventable death and disease in the United States, accounting for more than 400,000 deaths nationally each year.

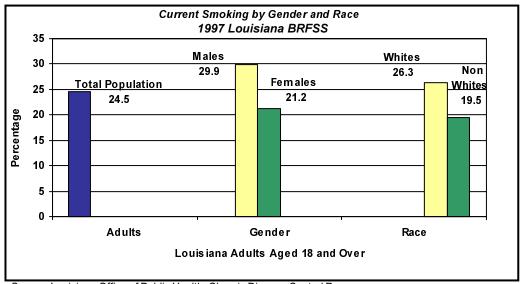
In 1994, twenty percent (7,951) of all deaths in Louisiana were attributable to cigarette smoking. Almost all (99%) of these deaths occurred as a result of cancer, heart disease, stroke, and vascular and respiratory diseases.

# Current Smoking Rates

In 1997, according to BRFSS results, approximately one out of four adult Louisianians was a current smoker. Among current smokers, 47.6% attempted to quit smoking for one or more days during the 12 months preceding the survey.



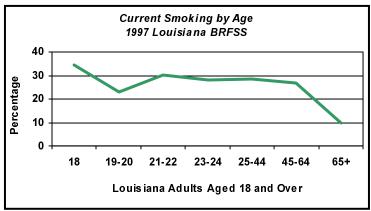
The prevalence of current smokers was higher in males (29.9%) than in females (21.2%). The white population had a higher prevalence of current smoking (26.3%) than the non-white population (19.5%). Prevalence of current smoking remained steady (approximately 28%) during the ages of 21-64 years and dramatically declined after age 65. This decline could be due to tobaccorelated deaths and complications from tobacco use.



Source: Louisiana Office of Public Health, Chronic Disease Control Program

# Cigarette Smoking and Youth

State and national data show that most current tobacco users actually begin using tobacco during their youth. The 1997 BRFSS data indicated that the highest proportion of current smokers was among the 18-year old age group (34.3%). This clearly justifies continued efforts to prevent tobacco use among youths. Based on research to date, the only proven method for reducing youth addiction is increased taxation. Studies have shown that about 10% fewer kids become addicted with each \$0.25 raise in tobacco taxation. The amount of taxation on cigarettes in Louisiana is low compared with other states.



Source: Louisiana Office of Public Health, Chronic Diseases Control Program



#### Smokeless Tobacco

The link between occurrence of oral cancer and the use of smokeless tobacco, snuff, and chewing tobacco has been clearly documented. The available research shows that snuff use increases the risk of oral cancer among nonsmokers four-fold. Among chronic snuff users the excess risk of cancer of the gum and buccal mucosa reaches nearly fifty-fold. In the United States, more than 30,000 cases a year of oral cancer are attributed to the use of smokeless tobacco.

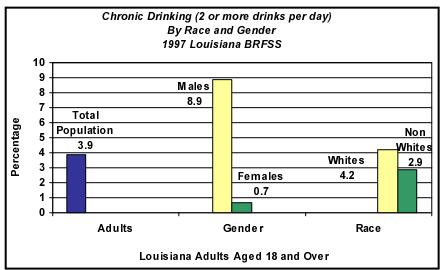
In the 1997 BRFSS, 3% of the adult population reported that they were current users of smokeless tobacco. However, 12.1% of the respondents indicated that they had used or tried smokeless tobacco products at some time. The overwhelming majority of current smokeless tobacco users were young, white, and male.

### **BRFSS: Alcohol Use**

Health and social problems associated with heavy, chronic, and binge drinking are well recognized. Liver diseases are associated with chronic alcohol abuse, and fatal motor vehicle accidents are associated with heavy chronic and binge drinking. Chronic drinking is defined as 2 or more drinks daily for 30 days or at least 60 drinks per month. Binge drinking is defined as 5 or more drinks on one or more occasions within 30 days.

Based on the 1997 BRFSS, approximately 15.2% of the Louisiana adult population reported at least one episode of binge drinking in the 30 days prior to the survey. Men (24.2%) were four times more likely to engage in binge drinking than women (7.4%) were. Whites (15.9%) were more likely to report binge drinking than Non-Whites (9.7%). The prevalence of binge drinking decreased with increasing age.

Approximately 3.9% of adult Louisianians reported that they consumed at least two alcoholic drinks each day of the month prior to the survey. Males (8.9%) were more likely than females (0.7%) to report chronic alcohol use. Whites (4.2%) were more likely than Non-Whites (2.9%) to report chronic alcohol use.



Source: Louisiana Office of Public Health, Chronic Diseases Control Program



# Drinking and Driving

Many studies suggest that automobile crashes in which alcohol plays a role tend to be much more severe than other crashes. Nationally, alcohol plays a role in about 20% of crashes involving serious injury to driver or passenger, about 50% of all fatal crashes, and about 60% of single-vehicle fatal crashes. Estimates place the number of deaths in the United States attributed to alcohol-related motor vehicle crashes at over 22,000.

Of those who indicated they had consumed alcohol in the month prior to the survey, 6.0% indicated that on at least one occasion they had driven when they had had too much to drink.

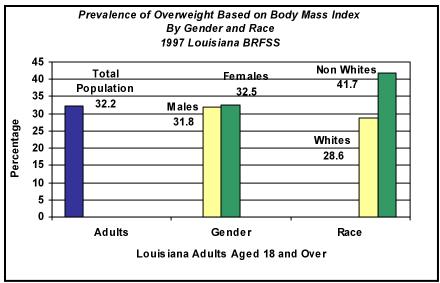
#### **BRFSS: Nutrition and Exercise**

Nutrition and exercise are important to good health overall and are related to weight or body fatness. Increases in body fatness are associated with high blood pressure, diabetes, coronary heart disease, and atherosclerosis. Additionally, high fat, low fiber diets are associated with various types of cancer.

# Overweight

The Body Mass Index (BMI) is a measure of body fatness derived from height and weight. For males a BMI of 27.8 or greater is considered overweight. For females a BMI of 27.3 or higher is considered overweight.<sup>4</sup>

Nearly one third (32.2%) of Louisiana adults are overweight. With increasing age, there is a general trend toward increasing prevalence of overweight. There were no significant differences in overweight prevalence between females (32.5%) and males (31.8%). However, Non-Whites (41.7%) were more likely than Whites (28.6%) to be overweight. With age, prevalence increases up to age 65 years. Interestingly, Americans overall are not eating many more calories. The weight increases are tied more directly to a marked decline in physical activity.



Source: Louisiana Office of Public Health, Chronic Diseases Control Program

ANAtional Center for Health Statistics. Healthy People 2000 Review, 1997. Hyattsville, Maryland: Public Health Service, 1997.



# Fruit & Vegetable Consumption

The National Academy of Sciences, the U.S. Department of Agriculture, the U.S. Department of Health and Human Services, The American Cancer Society's and the National Cancer Institute's dietary guidelines for fiber intake specify that at least 5 servings of fruit and vegetables per day are consistent with the maintenance of good health and cancer prevention.

The BRFSS-1998 is collecting new data on this topic. According to the 1996 BRFSS data, less than 20% of Louisiana's adults reported consumption of 5 fruits and vegetables per day. Males (14.4%) were less likely than females (21.2%) to report meeting the dietary fiber guideline.

# Physical Activity

The Surgeon General's report *Physical Activity and Health*<sup>5</sup> concluded that individuals of all ages who engage in regular physical activity have a lower mortality rate than individuals with sedentary lifestyles. While higher levels of fitness have greater health benefits, studies suggest that even moderate amounts of activity are beneficial. New research indicates that 30 minutes of moderate physical activity, even if broken into 3 ten-minute episodes, convey significant health benefits. Increases in physical activity are associated with decreases in body fatness, lowering of blood pressure, and increased glucose tolerance.

Persons who report no physical activity, outside of work, are classified as sedentary. The BRFSS-1998 is collecting new data on this topic. According to the 1996 BRFSS data, one in three Louisiana adults is physically inactive; that is, they had not been involved in leisure time physical activities in the month preceding the survey. Another 27.5% engage in irregular physical activity; that is, less than 3 times a week or less than 20 minutes per session. Overall, 62.3% were sedentary. The prevalence of sedentary lifestyles was similar for males (60.7%) and females (63.7%). However, a larger proportion of Non-Whites (70.2%) than Whites (59.1%) reported sedentary lifestyles.

# **BRFSS: Health Status**

Overall, the health status of the adult population may be reflected in the chronic disease burden. Chronic diseases of public health importance (i.e. diseases that are among the leading causes of death, that have high economic and disability impact, etc.) include hypertension, high cholesterol, and diabetes. The goal of public health with regard to these diseases is early detection through periodic screening and treatment.

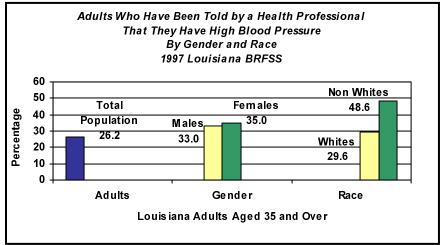
### High Blood Pressure (Hypertension)

High blood pressure is associated with increased risk for stroke, kidney failure, and coronary heart disease. Blood pressure tends to increase with age and can be affected by weight gain, physical inactivity, and, to a lesser extent, diet. Blood pressure should be checked periodically; individuals with high levels (greater than 140/90 mm Hg) recorded more than once should be referred for treatment.

Approximately one out of every four Louisianians, 35 years of age and older, has been told by a health professional that he has high blood pressure. While there were no significant differences regarding gender, a large differential exists between races; 29.6% of Whites and 48.6% of Non-Whites indicated they were ever told that they had high blood pressure.

<sup>&</sup>lt;sup>5</sup>Physical Activity and Health: A Report of the Surgeon General. Atlanta, Ga. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, 1996.



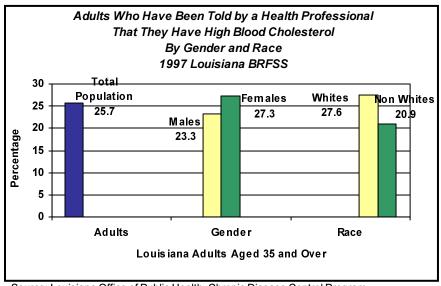


Source: Louisiana Office of Public Health, Chronic Disease Control Program

# High Cholesterol

High blood cholesterol is one of the major modifiable risk factors for coronary heart disease. It has been estimated that each 1% reduction in blood cholesterol levels results in a 2% reduction in the risk for heart disease.

One in four (25.7%) Louisiana adults age 35 and above indicated that a physician or nurse had told him that he had high blood cholesterol. Approximately 23.3% of males and 27.3% of females, aged 35 and older, indicated they had been told by a health professional that they had high cholesterol.



 $Source: Louisiana\ Office\ of\ Public\ Health,\ Chronic\ Disease\ Control\ Program$ 



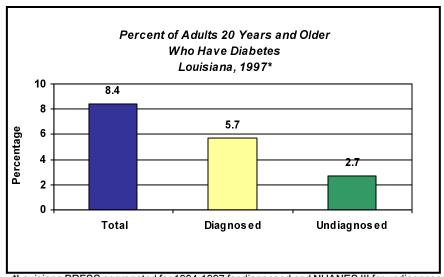
#### Diabetes

Diabetes is a complex, serious, and increasingly common disease. It is characterized by an inappropriately high glucose level in the blood, resulting from inadequate insulin production, inability of the body to use insulin, or both. Insulin is a hormone secreted by the pancreas that allows glucose to enter body cells and to be converted to energy, protein, and fat. Persons who are obese, physically inactive, or members of ethnic minorities (African-Americans, Hispanic/Latino Americans, and American Indians) and those with family history of diabetes or prior gestational diabetes are at a higher risk of acquiring diabetes.

Diabetes is the most common cause of non-traumatic amputations and end-stage renal disease and the leading cause of blindness in adults aged 20 to 74. In 1993 in Louisiana, diabetes caused an estimated 276 new cases of blindness, 1,162 lower extremity amputations, 417 new cases of end-stage kidney disease and 66,965 diabetes-related hospitalizations. The annual direct and indirect costs from diabetes in Louisiana exceed \$2 billion dollars.

Diabetes affects about 16 million Americans or 6% of the population of the United States. In 1994, Louisiana ranked second in the United States in self-reported prevalence of diagnosed diabetes.

An estimated 365,000 or 8.4% (5.7% diagnosed and 2.7% undiagnosed diabetes) of Louisiana residents 20 years and older have diabetes. Of the persons with diabetes, 32% or 115,000 are undiagnosed or unaware that they have diabetes and are therefore not receiving recommended treatment to prevent or delay the onset of complications. Over a million additional persons may be at increased risk for diabetes because of the risk factors of age, obesity, and sedentary lifestyle.



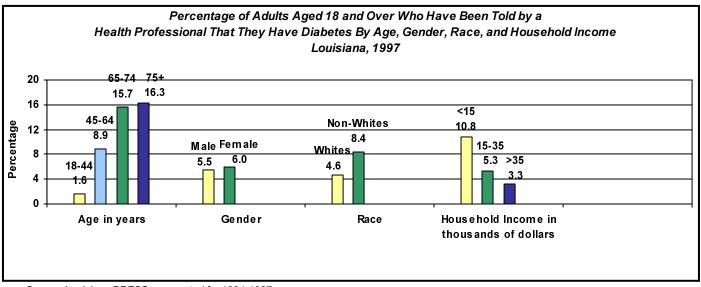
\*Louisiana BRFSS aggregated for 1994-1997 for diagnosed and NHANES III for undiagnosed diabetes Source: Louisiana Office of Public Health, Chronic Disease Control Program

In 1998, in-depth analysis of diabetes in Louisiana was performed using the most current available information. Data were compiled from the Louisiana BRFSS 1994-1997 interviews and the National Health and Nutrition Survey (NHANES III) conducted by the U.S. Centers for Disease Control. Analysis showed no statistically significant difference between females and males or among regions in Louisiana in self-reported risk of being diagnosed with diabetes. The prevalence of diabetes, however, increased as age increased, with the lowest rate of 1.6% in the 18 to 44 age group and the highest rate of 16.3% in 75+ age group. Persons older than 44 years were 7.4 times more likely to be diagnosed with diabetes as compared with persons less than 44 years of age.



Four point six percent of Whites and 8.4% of African-Americans reported having been diagnosed with diabetes. That is, the risk of being diagnosed with diabetes among African-Americans was 1.8 times higher than the risk among Whites. The prevalence of diabetes decreased with increasing household income. Individuals living in households with income less than \$15,000 a year had the highest prevalence —10.8% — while those living in households with annual incomes ranging from \$15,000 to \$35,000 and those above \$35,000 had rates of 5.3% and 3.3% respectively. In other words, the risk of being diagnosed with diabetes among persons with household income of less than or equal to \$15,000 was 2.3 times higher compared with the risk among households with an annual income of over \$15,000. Of the persons with diabetes, 55% were females, 84% were over 44 years of age (mean age of 61 years), 56% were white, 33% had a household income of less than \$15,000, 33% were employed and 41% were retired.

Diabetes is a risk factor for coronary heart disease and stroke. In fact, of the persons with diabetes in 1997, 13% were told they had coronary artery disease and 10% that they had had a stroke. Persons with diabetes are at even higher risk for cardiovascular disease morbidity and mortality because of the co-existence of other independent risk factors for cardiovascular disease. Fifty-one percent of persons with diabetes were found to be overweight based on body mass index, 29% were self-reported current smokers, 50% were told they have high blood pressure, and 38% were told they have high cholesterol. In addition, 68% reported no leisure time physical activity and 76% reported consuming less than the recommended five servings of fruit and vegetables a day.



Source: Louisiana BRFSS aggregated for 1994-1997

Diabetes is a common and serious disease in Louisiana. It is a costly disease not only in terms of the economic burden it imposes on the state but also in terms of the human suffering inflicted by the disease and its complications. At least 365,000 or 8.4% of Louisiana residents 20 years and older have diabetes. The prevalence of diabetes will continue to increase if the following trends continue: increase in the prevalence of obesity, ageing of the population, growth in minority populations, and persistence of socioeconomic gaps. Persons older than 44 years of age, African-Americans, and individuals with households income of less than 15,000 dollars are at higher risk of having diagnosed diabetes.



Diabetes surveillance should continue in order to identify high-risk groups, to monitor health outcomes and indicators of the quality of health care recommended for people with diabetes, to provide data to formulate health care policy, and to evaluate progress in disease prevention and control.

There is a need to develop effective intervention strategies to reduce the burden of diabetes. Much of the diabetes burden can be prevented with better education for diabetes self-management, early detection and treatment of complications, and improved delivery and quality of care with intensified efforts focused at high risk groups including the elderly, African-Americans, and the poor. Primary prevention through promotion of healthy behaviors that reduce obesity, such as proper nutrition and regular physical activity, and secondary prevention of diabetes complications via better clinical preventive services, including regular foot exams, dilated eye exams, and improved blood glucose control, will go far in reducing the diabetes burden.

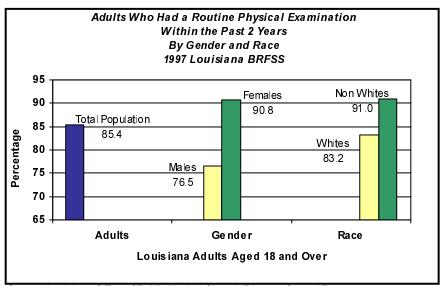
To reduce the burden of diabetes and diabetes complications, there is a need to develop new and to strengthen existing partnerships among private health care providers, appropriate governmental, voluntary, professional, and academic institutions and payers including Medicaid, managed care organizations, insurers, and employers. Because of the overlap in risk factors, intervention strategies, and programs for diabetes, cardiovascular and cerebrovascular diseases, and some cancers, prevention and control efforts need to be integrated and coordinated among several of the existing programs in chronic diseases within and outside the Office of Public Health.

#### **BRFSS: Preventive Health Care**

#### Routine Medical Examinations

The routine medical examination gives the physician an opportunity to assess the general health status of patients, to assess the need for screening, and to counsel patients regarding perceived issues that affect the patient's health. Thus, it is the prime opportunity to practice preventive care.

In the 1997 BRFSS, 85.4% of the respondents had a routine checkup within the last 2 years. Women (90.8%) were more likely than men (76.5%) to have had a routine checkup within the past 2 years. Non-Whites (91.0%) were more likely than Whites (83.2%) to have had a routine checkup within the past 2 years.



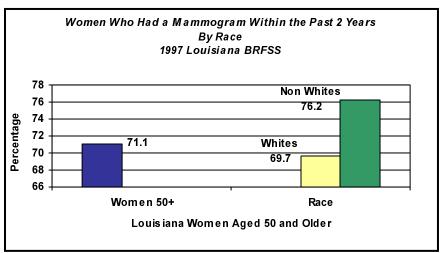
Source: Louisiana Office of Public Health, Chronic Disease Control Program



### Mammography

Among women, breast cancer is the most commonly diagnosed cancer. Routine breast examinations by a health professional, or clinical breast examination and mammography are the most effective ways of detecting breast cancer early and improving the chances of survival. The National Cancer Institute, the American Cancer Society, and the United States Department of Health and Human Services recommend that women have a mammogram each year beginning at age 50. There is some controversy about the benefits of screening younger women.

In the 1997 BRFSS, among Louisiana women aged 50 and older, 71.1% reported they had had a mammogram within the 2 years before the survey. Non-Whites (76.2%) were more likely than Whites (69.7%) to report that they had had a mammogram within the last 2 years.



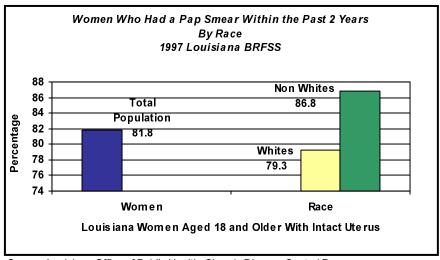
Source: Louisiana Office of Public Health, Chronic Disease Control Program

#### Pap Smear

A Pap smear is used to obtain a sample of cervical cells to be evaluated for dysplasia or cervical cancer. The American Cancer Society recommends annual Pap tests for all women who are or have been sexually active or who have reached age 18. Once 3 annual Pap smears have been normal, the test can be done every 3 years unless a physician recommends more frequent testing.

Among women who had an intact uterus (had not had a hysterectomy), 81.8% had had a Pap smear within the past two years. Non-White women (86.8%) were slightly more likely than White women (79.3%) to have had a Pap smear within the past two years.





Source: Louisiana Office of Public Health, Chronic Disease Control Program

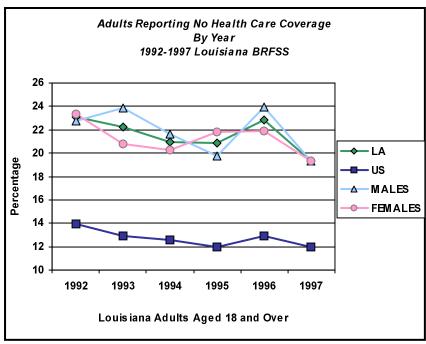
### **BRFSS: Medical Care Coverage**

Availability of health care coverage is a crucial component in an individual's access to health care. An important Year 2000 Health Objective for the nation is to "improve financing and delivery of clinical preventive services so that virtually no American has a financial barrier to receiving, at a minimum, the screening, counseling, and immunization services recommended by the U.S. Preventive Services Task Force." Individuals without medical coverage, and even some individuals with coverage (underinsured), may not receive health care due to the cost of care. Therefore, measures of utilization of health care, including routine checkups, are dependent on coverage. The BRFSS assesses health care coverage by asking about private insurance, prepaid plans (HMOs), or Medicare.

Louisiana consistently has higher rates of adults with no health care coverage compared with the United States adult population at large.

In the 1997 BRFSS, 19.3% of Louisiana adults who were surveyed reported that they had no health care coverage. While there were no disparities between rates of no health care coverage among females (19.3%) and males (19.3%), there was a clear racial difference, with Non-Whites (29.9%) being more likely than Whites (15.4%) to report a lack of health care coverage.

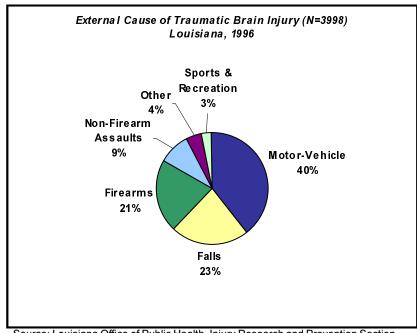




Source: Louisiana Office of Public Health, Chronic Disease Control Program

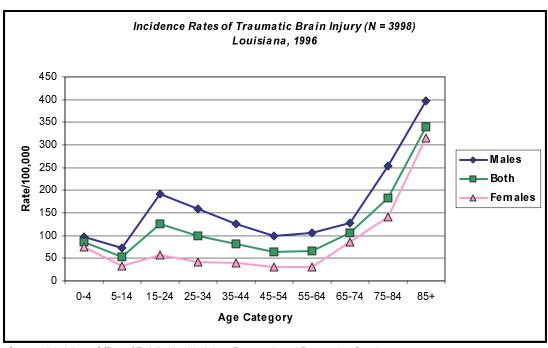
### G. TRAUMATIC BRAIN INJURY

Injuries to the central nervous system are one of the most severe types of injuries in terms of both human suffering and costs to society. They are a major public health problem because of the permanence of the resulting disability, the high costs of acute and long-term treatment, and the fact that they frequently occur to young people. Traumatic brain injury is a reportable condition in Louisiana.



Source: Louisiana Office of Public Health, Injury Research and Prevention Section





Source: Louisiana Office of Public Health, Injury Research and Prevention Section

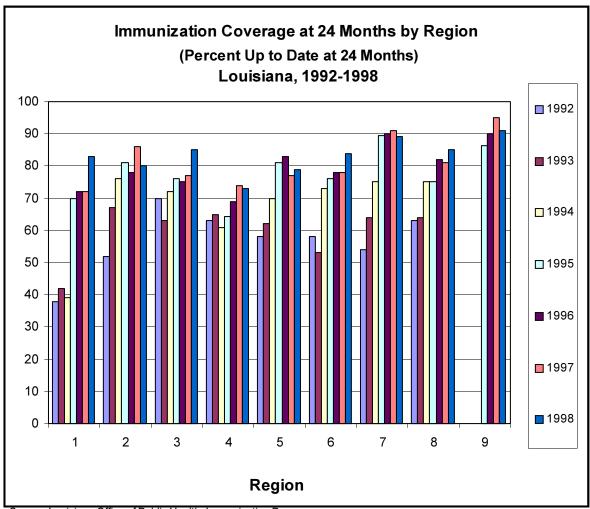




## III. HEALTH ASSESSMENT PROGRAMS

### A. IMMUNIZATION COVERAGE

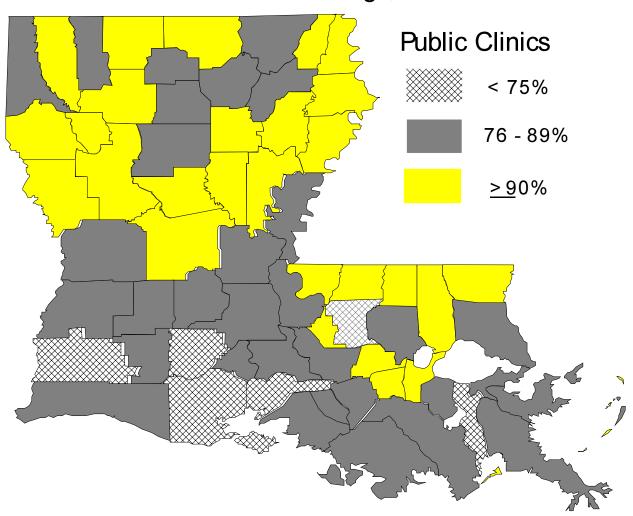
The Immunization Program of the Office of Public Health conducts periodic assessments to determine the immunization coverage rates throughout the state. As the graph below displays, rates of coverage have been steadily increasing since 1992, though there have been year to year variations.





The map below displays the percent of immunization coverage at 24 months of age among those served in public clinics. East Carroll and Plaquemines parishes have the lowest immunization coverage rates in the state (see following table).

## Immunization Coverage, 1998



Immunizations: Percent Up-To-Date at Age 24 Months*	
Louisian Clinic	a, 1997-1998 %UTD 1997-1998 Results
Region I	%01D 1991-1996 Results
Jefferson-Grand Isle	99.7
Orleans-Mary Buck	97.3
Orleans-Katherine Benson	94.7
Orleans-Edna Pilsbury	94.0
Orleans-Helen Levy	92.7
Orleans-Mandeville Detiege	90.0
Orleans-Ida Hymel	89.3
Orleans-St. Bernard Gentilly	89.2
St. Bernard	87.1
Jefferson-Marrero	83.3
Plaquemines	80.9
Jefferson-Marrero	73.0
Region II	
Ascension-Gonzales	98.3
West Feliciana	94.6
Ascension-St. Amant	91.4
West Baton Rouge	90.6
East Feliciana-Clinton	89.7
Ascension-Donaldsonville	88.8
Iberville	85.9
Pointe Coupee	85.7
E. Baton Rouge	66.0
E. Baton Rouge-Baker	52.7
Region III	
St. James-Vacherie	100.0
St. John-Edgard	100.0
St. James-Lutcher	96.8
St. John-Reserve	95.8
Lafourche-Thibodaux	91.4
St. Mary-Morgan City	90.6
Lafourche-Raceland St. Charles	88.7
Lafourche-Galliano	88.0 87.3
Terrebonne	85.3
St. Mary Franklin	81.6
Assumption	81.0
Region IV	01.0
St. Landry-Opelousas	93.9
Evangeline-Ville Platte	92.7
Evangeline-Mamou	90.6
Acadia-lota	87.9
St. Landry-Melville	86.8
Acadia-Church Point	83.7
St. Martin-Cecilia	81.0
St. Martin-St. Martinville	80.7
Lafayette	79.2
Vermillion-Abbeville	78.4
St. Martin-Breaux Bridge	77.2
Acadia Crowley	77.0
St. Landry-Sunset	75.7
Vermillion-Gueydan	74.1
Vermillion-Erath	72.4
Iberia-New Iberia	72.3
St. Landry-Eunice	71.5
Vermillion-Kaplan	71.4
Iberia-Jeanerette	66.4
Acadia-Rayne	61.2

<sup>\*</sup>Up-to-date includes 4 DTAP, 3 OPV or IPV, and 1 MMR



Immunizations: Percent Up-To-Date at Age 24 Months*	
Clinic Louisiana	a, 1997-1998 WUTD 1997-1998 Results
Region V	%01D 1997-1998 Results
Allen-Oakdale	91.1
Cameron	89.4
Allen-Oberlin	87.5
Beauregard	86.6
Jefferson Davis	85.6
Calcasieu-Sulphur	85.2
Calcasieu-Dequincy	79.0
Calcasieu-Dequincy Calcasieu-Lake Charles	69.4
Region VI	1 09.4
LaSalle	99.7
Catahoula-Joneville	91.2
Concordia-Ferriday	90.5
Rapides	90.3
Grant	89.9
Avoyelles-Marksville	
Winn	88.3 86.3
Vernon	83.7
vernon Avoyelles-Bunkie	78.2
Concordia-Vidalia	78.2
Catahoula-Harrisonburg <b>Region VII</b>	N/A
Bienville-Acadia	100.0
	100.0
Bienville-Ringgold	98.8
Caddo-Vivian	96.4
Natchitoches	96.1
Webster-Minden	95.7
Claiborne Sabina	95.5
Sabine	93.8
DeSoto	92.7
Bossier-Bossier City	92.7
Red River	90.5
Caddo-Shreveport	87.0
Webster-Springhill	83.7
Region VIII	05.7
East Carroll	95.7
Caldwell	95.6
Franklin-Winnsboro	94.5
Ouachita-Monroe	93.5
Tensas-St Joseph	92.8
U nio n	91.7
Madison	90.2
Ouachita-West Monroe	90.1
West Carroll-Oak Grove	89.5
Morehouse-Basdrop	89.2
Lincoln	85.7
Richland-Rayville	84.2
Jackson-Jonesboro	82.3
Region IX	
St. Helena	100.0
Washington-Franklinton	100.0
Washington-Bogalusa	100.0
Tangipahoa-Hammond	99.3
Tangipahoa-Amite	99.1
Livingston-Albany	92.0
Livingston-Denham Springs	91.1
Livingston-Livingston	90.0
St. Tammany-Slidell	84.1
St. Tammany-Covington	83.2

<sup>\*</sup>Up-to-date includes 4 DTAP, 3 OPV or IPV, and 1 MMR

### B. INFECTIOUS DISEASE SURVEILLANCE

### **Disease Surveillance**

Surveillance of infectious diseases, chronic diseases, and injuries is essential to understanding the health status of the population and planning effective prevention programs. The history of the reporting and tracking of diseases that pose a risk to public health in the United States dates back more than a century. Fifty years ago, morbidity statistics published each week were accompanied by a statement "No health department, state or local, can effectively prevent or control diseases without the knowledge of when, where, and under what condition, cases are occurring." Today, disease surveillance remains the primary tool for the gathering of information essential to controlling disease spread in the population. Achievement of the Centers for Disease Control Healthy People 2000 Objectives depends in part on our ability to monitor and compare progress toward the objectives at the federal, state, and local levels.

Infectious disease surveillance activities are a primary function of the programs within the Department of Health and Hospitals (DHH), Office of Public Health (OPH). Many OPH programs exist to conduct disease surveillance for the state of Louisiana. A sampling of these programs includes the Infectious Epidemiology Program, Sexually Transmitted Diseases Control Program, Tuberculosis Control Program, HIV/AIDS Program, and Immunizations Program.

Disease surveillance involves the collection of pertinent data, the tabulation and evaluation of the data, and the dissemination of the information to all who need to know. This process is a very important aspect of public health because its purpose is the reduction of disease, and death. The immediate use of surveillance is for disease control; the long-term use is to assess trends and patterns in morbidity.

Surveillance also facilitates epidemiologic and laboratory research, both by providing cases for more detailed investigation or case-control studies, and by directing which research avenues are most important. Reports of unusual clusters of diseases are often followed by an epidemiological investigation to identify and remove any common source exposure or to reduce other associated risks of transmission.

### **Notifiable Diseases**

Reporting of notifiable diseases to the health department is the backbone of disease surveillance in Louisiana and nationally. The Sanitary Code, State of Louisiana, Chapter II, entitled "The Control of Diseases," charges the Board of Health to promulgate a list of diseases that are required to be reported, who is responsible for reporting, what information is required for each case of disease reported, what manner of reporting is needed, and to whom the information is reported.

Reporting of cases of communicable diseases is important in the planning and evaluation of disease prevention and control programs, in the assurance of appropriate medical therapy, and in the detection of common-source outbreaks. Surveillance data gathered through the reporting of notifiable diseases are used to document disease transmission, quantify morbidity and estimate trends, and identify risk factors for disease acquisition.

The Health Department routinely follows-up selected diseases, either directly or through their physician or other health care provider. This follow-up is done to ensure initiation of appropriate therapy for the individual and prophylactic therapy for contacts of persons with infectious conditions. All reports are confidential.



Confidential disease reporting has been an essential element in monitoring and maintaining the health of the public in Louisiana. Through participation in disease-reporting, physicians and other health care providers are integral to ensuring that public health resources are used most effectively.

Mandatory reporting is required for a number of infectious diseases, including sexually transmitted diseases, HIV/AIDS, tuberculosis, mumps, and many others. The following description of surveil-lance procedures for measles and rubella is typical of the procedures followed for all reportable diseases.

### **Surveillance for Measles and Rubella (German Measles)**

All health care providers are required to report suspect cases of measles and rubella by phone immediately to their local public health unit. When a possible case is reported, local and statewide public health personnel are mobilized immediately to evaluate the case and to establish a rapid control effort in order to prevent the spread of the illness. All contacts are interviewed by phone or in person, and children and adults without adequate immunization are immediately vaccinated.

These diseases are very infectious and spread rapidly. One out of every ten measles cases requires hospitalization and one out of every thousand die. Women who are infected with rubella during pregnancy have a high likelihood of having severely deformed babies.

A measles outbreak was identified in Louisiana in 1995, with seventeen cases identified before disease spread was stopped. The outbreak lasted 37 days. Control of the outbreak required the examination of 35 suspected cases, a total of 3,252 phone calls, the immunization of 2,527 individuals, and active investigations at 28 sites (including day care centers, hospitals, and physicians' offices).

In Louisiana in 1997, no cases of measles and rubella were identified.

### **Selected 1997 Results of Infectious Disease Surveillance**

- In 1997 shigella cases decreased 68% from 1996, and Louisiana's case rate was less than half the national rate.
- Statewide and nationally, there was a substantial decrease in the number of AIDS cases diagnosed and reported in 1997. Louisiana ranked 9<sup>th</sup> highest in the state AIDS case rates and 12<sup>th</sup> in the number of AIDS cases reported in 1997.
- The number of primary and secondary syphilis cases reported decreased 47% from 1996 and 181% from 1995.
- Fifty-seven cases of invasive meningococcal infections were reported, a 14% decrease from the previous year.
- Four cases of Eastern Equine Encephalitis (EEE) were reported in 1997: three in September and a fourth case in November.
- Louisiana continues to exceed the national rate in tuberculosis cases (406 in 1997) and was ranked 10<sup>th</sup> in the nation (according to case rate) in 1996. Over a third (36%) of all tuberculosis cases and nearly one-half of pediatric cases (48%) were from the New Orleans region.
- Preliminary data for 1997 show a rate of 6.1 per 100,000 for spinal cord injuries (SCI).
- An outbreak of gastroenteritis caused by *E. coli 0157:H7* occurred in students and teachers of an elementary school.
- Sixty clusters of persons from five states developed gastroenteritis that was associated with consumption of Louisiana oysters. Three different harvest waterways were identified, each associated with a unique Norwalk virus strain responsible for the illnesses.

- Salmonella newport was responsible for illness in a large number of people attending a school fund-raising event.
- *C. perfringens* caused an outbreak of gastroenteritis that occurred in attendees of a Christmas banquet after consumption of a catered dinner meal.

### 1997 and 1998 Disease Statistics

Please refer to the Vaccine Preventable Diseases, STDs, TB, and HIV/AIDS sections in "Chapter II: Morbidity."

### **Reports**

The bimonthly Louisiana Morbidity Report and the Epidemiology Annual Report are published by the Office of Public Health, Infectious Epidemiology Program. Both publications present information and statistics describing the status of reportable diseases in Louisiana.

### C. SEXUALLY TRANSMITTED DISEASE (STD) AND HIV/AIDS SURVEILLANCE

Contracting a sexually transmitted disease can have serious consequences. For example, advanced (tertiary) syphilis can produce neurological, cardiovascular, and other terminal disorders, pelvic inflammatory disease, infertility, ectopic pregnancy, blindness, cancer, fetal infant death, birth defects, and mental retardation.

The DEPARTMENT OF HEALTH AND HOSPITALS, through the OFFICE OF PUBLIC HEALTH'S STD CONTROL PROGRAM and the HIV/AIDS PROGRAM, conducts surveillance to determine the incidence and prevalence of STDs and HIV/AIDS, monitors STD and HIV/AIDS trends, collects data on the location and referral of persons with or suspected of having a sexually transmitted disease for examination and early treatment, and conducts partner notification to limit the spread of the diseases.

### 1996 National Rankings

Nationally, Louisiana has a high ranking among the 50 states with regard to rates of sexually transmitted diseases (STDs) and HIV/AIDS.

- From 1995 to 1997, the state saw improvement in its ranking for syphilis, with a move from 2<sup>nd</sup> to 7<sup>th</sup> highest in the nation.
- Gonorrhea rates, however, moved from 10<sup>th</sup> highest in the nation in 1995 to 5<sup>th</sup> highest in 1997; chlamydia rates rose from 11<sup>th</sup> highest in 1995 to 5<sup>th</sup> highest in 1997. The rise in ranking for gonorrhea and chlamydia reflects an increase in the number of labs included in the state's STD surveillance system. This has resulted in the identification of cases that would not have been identified in the past.
- From 1996 to 1997, Louisiana's AIDS rate ranking declined from 8<sup>th</sup> to 9<sup>th</sup> highest in the nation. Improvement was also seen in the city rate rankings for New Orleans (9<sup>th</sup> highest in 1996, 11<sup>th</sup> in 1997) and Baton rouge (10<sup>th</sup> highest in 1996, 19<sup>th</sup> in 1997).

### 1997 and 1998 Disease Statistics

Please refer to the STDs and HIV/AIDS sections in "Chapter II: Morbidity."

### **Reports**

The STD Control Program and the HIV/AIDS Program maintain program databases, and generate specific reports and analyses by cause, location, and demographic factors for individuals, communities, and agencies. The HIV/AIDS Program also publishes the HIV/AIDS Annual Report, which is available to the public.



## D. TUBERCULOSIS (TB) SURVEILLANCE

The Louisiana Office of Public Health TB Control Program conducts active surveillance for tuberculosis in the state. Regional staff interact with area physicians, hospitals, and laboratories in the course of their duties. All known or suspected cases of tuberculosis are investigated to assure that transmission of tuberculosis is contained.

Currently, TB Control in Louisiana is working with CDC to enhance surveillance activities. Improved methodology is being implemented to facilitate reporting and tracking.

### 1997-1998 Disease Statistics

Please refer to the Tuberculosis section in "Chapter II: Morbidity."

# E. ALCOHOL & DRUG ABUSE PROGRAM: INTRAVENOUS DRUG USE TREATMENT AND STD, TB, AND HIV/AIDS SCREENING

The Division of Treatment Services, Office of Alcohol and Drug Abuse (OADA), Department of Health and Hospitals treats persons with alcohol, drug, and other addiction problems and provides on-site testing for STD's, TB, and HIV for OADA clients.

### **IV Drug Use Treatment**

Due to the great impact of intravenous drug use on the health of the public, treatment of Intravenous Drug Users (IVDU) is a high priority of the OADA. IVDU's are given statewide priority admission, by policy, to all OADA programs and treatment modalities. These programs include outpatient (non-intensive and intensive), detoxification (social and medical), inpatient residential, community based programs (halfway houses, three-quarter way houses, and therapeutic communities), and special programs (criminal justice: Blue Walters, Gambling Courts, and Drug Courts).

### STD, TB, and HIV/AIDS Screening

In addition to treatment of addiction problems, OADA makes available STD, tuberculosis, and HIV testing to each individual receiving treatment. Testing is offered, either directly or through arrangements with other public or nonprofit private entities, through a Qualified Service Organization Agreement (QSOA) and a Memorandum of Understanding (MOU) between the Office of Public Health and OADA. This system includes the provision of the necessary supplies by the Office of Public Health's STD Control, TB Control, and HIV/AIDS Programs for on-site STD, TB, and HIV testing of OADA clients.

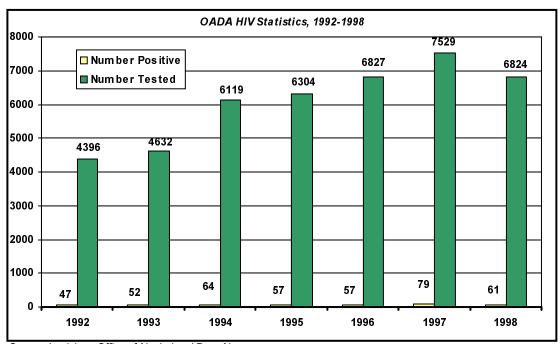
Emphasis is placed on making available within the existing programs early intervention services for HIV in areas of the state that have the greatest need for such services. Ongoing testing and preand post-test counseling are provided. Individuals testing positive are referred to the Office of Public Health Outpatient Clinics for further evaluation and appropriate testing. OADA also provides ongoing counseling to its clients regarding HIV prevention and treatment, self-help groups, information and referral services, and counseling with partners of HIV positive clients.

The DHH HIV PROGRAM OFFICE has established outpatient clinics for HIV/AIDS patients in all regions of the state. These outpatient clinics are located in the Regional Charity Hospitals, except in Shreveport, where the clinic is located at Louisiana State University Medical Center. Additionally, the DHH HIV PROGRAM OFFICE has established consortiums in each of the state's nine Administrative Regions. The consortiums advocate treatment services for the HIV/AIDS client. Upon a client being identified as an HIV patient, he or she is referred to the local consortium and/or directly to the Charity Hospitals outpatient clinics, which are under the auspices of the Office of Public Health. Besides referrals to public agencies, clients can be referred to other HIV supportive services that are available in the community. OADA utilizes this referral network to access additional services for substance abuse clients diagnosed with HIV/AIDS. The Office has established a working relationship with the referral entities and is able to monitor the needs of clients who have been referred.

OADA collaborates with the Office of Public Health, HIV/AIDS Services Program in the provision of cross-training, pre- and post-test counseling for clients, cooperative agreements, funding requests and other appropriate activities targeting HIV early intervention and AIDS services for substance abusers.

### 1997-1998 Program Statistics

- OADA Management Information System indicates that there were 4,865 intravenous drug users (IVDU) admissions during SFY 1998 (18% of the total population) and 5,142 IVDU clients during SFY 1997 (20% of the total population). These figures indicate no significant fluctuations within the last three years (IVDU admissions for SFY 1996 were 4,820 or 19% of the total population).
- The Office of Public Health's (OPH) summary of statistics for calendar year 1997 shows that 7,529 individuals from OADA clinics were tested for HIV. Of this population, 79 (1%) tested positive for the HIV virus. OPH data for the 1998 calendar year indicates that 6,824 OADA clients were tested for HIV and only 61 (1%) were found to be HIV positive. These data reveal no significant changes in HIV positive findings since 1992.



Source: Louisiana Office of Alcohol and Drug Abuse



### F. STATEWIDE CHILD DEATH REVIEW PANEL

The Office of Public Health's Injury Research and Prevention Section maintains a database on cases examined by the multidisciplinary, legislatively-mandated <u>Statewide Child Death Review Panel</u>. The Panel is currently charged with examining records for all unexpected deaths of children under age 10 in the state to assure that proper investigation, follow-up, and prevention programs are in place.

Throughout 1998, the coordinator for the Panel worked to establish local child death review panels. The purpose of local panels is to ensure the adequacy, completeness, and timeliness of investigations and data collection and to facilitate the translation of investigative findings into preventive actions.

### **Reports**

An annual report of Panel findings is presented to the Legislature and is available to the public through the Injury Research and Prevention Section.

### G. Brain and Spinal Cord Injury Registry

Injuries to the central nervous system are one of the most severe types of injury in terms of both human suffering and costs to society. This legislatively-mandated registry collects information from all Louisiana hospitals on the demographics, types, causes, extents, risk factors, and outcomes of central nervous system injuries. This information is then used to generate prevention programs. Examples of prevention programs generated from these data include prevention of falls from deer stands, safe tackling practices for high school football players, and recommendations to make junior rodeo riding safer.

### 1996 Statistics

Please refer to the Traumatic Brain Injury section in "Chapter II: Morbidity."

### Reports

OPH's Injury Research and Prevention Section produces an annual report, available to the public, based on the data from this registry.

### H. INJURY SPECIFIC DEATHS DATABASE

This database compiles death certificate information on all injury-related deaths in the state for the years 1986 to the present. This information is used to describe patterns in the occurrence of injuries in Louisiana, for both the education of the public and for guidance in the development of prevention programs.

### **Reports**

The Injury Research and Prevention Section maintains this database and is able to generate specific reports and analyses by cause, location, and a variety of demographic factors for individuals, communities, or agencies.

### I. BURN INJURIES

Hospitals are required by law to report severe burn injuries to the Office of the State Fire Marshal to assist in the identification of arsonists. In 1997, the Injury Research and Prevention Section entered into a partnership with the State Fire Marshall to provide a broader analysis of data that describes patterns of burn injuries in Louisiana.

Data on burn injuries in Louisiana are available for the years 1995 through 1998. The Section is currently conducting a case control study to identify the risk factors for cooking burn injuries.

### J. Drowning Surveillance

After identifying drowning as the third leading cause of injury deaths for men in 1996 (behind motor vehicles and firearms), the Injury Research and Prevention Section began collecting information on all drowning deaths that occurred in 1998. Information being collected on drowning includes the use of personal floatation devices, ability to swim, and whether or not the person entered the water intentionally. The Injury Research and Prevention Section will be producing a report on drowning in Louisiana and identifying opportunities for drowning prevention.

### K. LOUISIANA ADOLESCENT HEALTH INITIATIVE

Begun in September of 1995 by the DHH, Office of Public Health, the <u>Louisiana Adolescent</u> <u>Health Initiative</u> facilitates a coordinated, multi-disciplinary approach to adolescent health care, disease prevention, and health promotion in the state. It provides an infrastructure to enable local communities to address adolescent health needs more effectively and efficiently.

The collection of data and dissemination of information are essential parts of the Initiative. Providing information on both adolescent health issues and on current adolescent health activities is a priority. The state public health office serves as a synthesizer and central repository for such information. The use of statewide teen health questionnaires and adolescent focus groups, coupled with the collection of adolescent health statistics, provides parents, communities, politicians, and policy makers with a clear picture of adolescent health in Louisiana. With technical assistance from the DHH, Office of Public Health, regional and local communities are able to identify and prioritize teen health needs. OPH gives presentations on adolescent health to local communities and provides technical assistance to communities in the design, implementation, and evaluation of their community-based programs.

Currently, there are many state and local projects that emphasize different aspects of adolescent health. Some focus on teenage pregnancy or teen parenting, while others focus on HIV/AIDS, tobacco control, conflict resolution, cardiovascular health, or on the maintenance of school-based health clinics. The Initiative allows for the planning, development, implementation, and evaluation of these activities in a coordinated, collaborative fashion. In addition, it broadens the scope of cooperation to include the DHH Offices of Mental Health and Alcohol and Drug Abuse, the Division of Youth Development, and others. Such team-building efforts are necessary to merge the work of all agencies working with the common goal to ensure health and happiness for Louisiana's youth.



### Results

Activities to date include:

- Collecting of statistical data in the area of adolescent health, including emotional and social indicators for the *Louisiana Adolescent Health Data Book*
- Producing and distributing a listing of statewide programs that provide counseling and medical services to help teens prevent pregnancy to be included in the LA Teen Pregnancy Prevention Directory
- Producing statistical pamphlets for statewide distribution on the current health status of Louisiana adolescents
- Compiling reports from Orleans Parish Women, Infants, and Children nutrition program (WIC) teen health questionnaire (250 surveys collected to date)
- Planning and coordinating the AAUW Sister to Sister Summit
- Increasing coordination and networking with both internal DHH, OPH programs, and external agencies involved in public health and social welfare
- · Collaborating with other state and national adolescent projects
- Providing technical assistance to community coalitions that are performing comprehensive adolescent activities
- Giving presentations on the Initiative and on adolescent health to national organizations, statewide organizations, and community-based organizations
- Serving as an Adolescent specialist on various statewide adolescent Task Forces
- Placing highlights of the Initiative in national and local newsletters.

### L. ORAL HEALTH ASSESSMENT

The effects of poor oral health can greatly impact the overall health of an individual. Poor oral health in children can have far-reaching results, including infection, absence from school, and malnutrition. The Oral Health Program of the Office of Public Health, Maternal and Child Health Program, is charged with monitoring the oral health status of Louisiana's children.

### **Comprehensive Oral Health Needs Assessment**

The Oral Health Program has several current initiatives, one of which is a <u>Comprehensive Oral Health Needs Assessment</u> among Louisiana's children. This needs assessment uses data for successive years, gathered from two sources: survey data collected by the Oral Health Program and Dental Medicaid claims data.

In 1997, information on primary oral health status was collected from a dental survey conducted in eight elementary and high schools with school-based health centers. In this survey, only 15.8% among all children examined were caries free, and 5.2% of the 17-18 year old population were caries free. Treatment urgency was determined after the full oral examination was completed; 21.9% of males examined and 18.8% of female students were in need of urgent care. Although a large proportion of the children, 75.2%, could benefit from the application of dental sealants, only 6.2% of all children had any sealants present.

### M. ENVIRONMENTAL EPIDEMIOLOGY AND TOXICOLOGY

Louisiana ranks among the top states in the United States in the per capita production of hazardous wastes and in the amount of chemicals released into its water, air, and soil.

The Office of Public Health, Section of Environmental Epidemiology and Toxicology (SEET) promotes the reduction in chronic disease morbidity and mortality related to human exposure to chemical contamination within the state of Louisiana. SEET oversees and responds to public health needs with regard to environmental health issues.

In recent years, there has been an increase in public awareness of the acute and chronic health effects of chemicals in the environment and a greater demand for SEET to investigate these effects. SEET attempts to address residents' concerns by:

- · Identifying toxic chemicals in the environment that are likely to cause health effects
- Evaluating the extent of human exposure to these chemicals and the adverse health effects caused by these exposures
- Making recommendations for the prevention/reduction of exposure to toxic chemicals and the adverse health effects caused by these exposures
- Promoting a better public understanding of the health effects of chemicals in the environment and of the ways to prevent exposure.

Activities conducted by SEET include:

Epidemiological and Toxicological Investigations (Discussed in this section.)

- Public Health Assessments and Consultations (Toxic Site Assessments)
- Pesticide Exposures
- Disease Cluster Response
- Cancer Mortality Trend Analysis
- Mercury Blood Screening

Environmental Health Advisories (See "Chapter IV: Preventive Health Outreach Programs".)

· Mercury in Fish

Environmental Health Education (See "Chapter IV: Preventive Health Outreach Programs".)

- · Methyl Parathion and Other Pesticides
- · Mercury in Fish
- · Health Professional Education
- Public Health Response for Chemical Spills

The projects described below are representative of those coordinated by SEET.



### **Public Health Assessments and Consultations**

Health Assessors complete extensive <u>Public Health Assessments</u> or shorter <u>Health Consultations</u> for Superfund and other hazardous waste sites in Louisiana. The <u>Public Health Assessment</u> is an evaluation of all relevant environmental information, health outcome data, and community concerns around a hazardous waste site. It identifies populations potentially at risk and offers recommendations to mitigate exposures. A Health Consultation is a response to a request for information and provides advice on specific public health issues that could occur as a result of human exposure to hazardous material. Based on the above documents, health studies, environmental remediation, health education, exposure investigations, or further research may be recommended.

There are 600-700 CERCLA (Comprehensive Environmental Responsibility, Compensation, and Liability Act) hazardous waste sites in Louisiana. SEET is evaluating the public health impact of 27 of these sites (see map of sites on the following page). An Onsite Review Update and five Health Consultations were written in 1998. Details concerning these activities can be obtained from SEET. SEET also (1) develops fact sheets or other handouts to help inform the local community about health issues around hazardous waste sites, (2) responds to individuals' requests for toxicological and medical information, and (3) makes presentations in public meetings and availability sessions around the state.

### Madisonville Creosote Works

The Madisonville Creosote Works (MCW) site located in Madisonville, St. Tammany Parish, Louisiana is an example of a site that SEET is currently evaluating. MCW opened in the 1950's as a wood treatment facility where wood products were treated with creosote. All wood preserving activities were stopped in 1994, and the facility is no longer in operation.

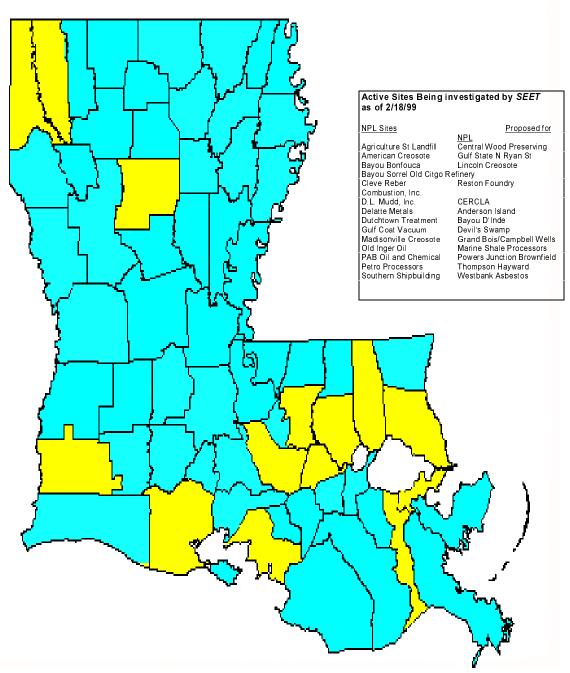
Creosote can cause burning of the eyes and reddening, blistering, and peeling skin. Creosote contains Polycyclic Aromatic Hydrocarbons (PAH), which can cause skin irritation and rashes in people and tumors in laboratory animals. PAH's have been associated with lung and skin cancers.

In 1991, LDEQ's Inactive and Abandoned Sites Division conducted an investigation of off-site contamination near the MCW site. This investigation revealed approximately 300 linear feet of creosote contamination in a drainage ditch along Louisiana Highway 22, and 2,300 feet of contamination within an unnamed intermittent stream southeast of the facility.

Staff from SEET attended a public meeting on September 10, 1996 to gather information. On September 5, 1997, a <u>Public Health Assessment</u> was released that addressed community health concerns for the area. Working with state and federal environmental agencies, SEET is currently reviewing environmental sampling results and will give public health recommendations based on these results in a <u>Public Health Consultation</u> to be released in the Spring of 1999.

## Parishes with Superfund and Selected Hazardous Waste Sites in Louisiana

(Lighter shades represent parishes with active sites being investigated by SEET as of 2/18/99.)





### **Pesticide Exposures**

SEET receives information on pesticide exposure cases reported to the Louisiana Department of Agriculture and Forestry. Staff obtain medical records when available, and then review data about each case, including statements, investigator's report, and any sample results. SEET also maintains a statewide pesticide hypersensitivity registry. When all data are reviewed, SEET's medical consultant makes a determination about the potential short- and long-term health effects in each case and sends a letter to the complainant with an explanation for this determination and, when appropriate, a recommendation to ameliorate the situation. Each case is classified as one of the following:

- · Confirmed--adverse health effects resulting from a reported pesticide exposure are verified
- · Likely--adverse health effects resulting from a reported pesticide exposure are likely
- Possible--adverse health effects resulting from a reported pesticide exposure are plausible
- Unlikely--adverse health effects resulting from a reported pesticide exposure are improbable
- None--adverse health effects resulting from a reported pesticide exposure are ruled out.

### 1997-98 Pesticide Cases (non-Methyl Parathion)

There were 35 reported pesticide complaints during the period of October 1, 1997 through September 30, 1998. This is three more reported complaints than the previous year. Out of the 32 complaints for which determinations have been made, six (19%) were unlikely, 18 (56%) were possible, two (6%) were likely, and none (0%) were confirmed. Six complaints had missing information (19%).

Complaints were made in 24 parishes, which is one more parish than the previous year. Parishes with two or more complaints were Jefferson (6), St. Landry (3), Orleans (2), East Baton Rouge (2), Iberville (2), Iberia (2), and Rapides (2).

### Methyl Parathion

From 1996 through 1998, a multitude of illegal sales and applications of methyl parathion in Louisiana resulted in the contamination of many homes. SEET staff continue to monitor households living in homes with Methyl Parathion contamination. (For public health education efforts, see the section on Preventive Health Outreach Programs.)

Using an established protocol, a multi-agency clean-up process involving the U.S. Environmental Protection Agency, the Agency for Toxic Substances and Disease Registry, the Army Corps of Engineers, the Louisiana Department of Agriculture and Forestry, and the Louisiana Department of Health and Hospitals began on January 3, 1997. Under this protocol, 1,800 households were environmentally sampled and 583 of these households tested positive. Urine samples were collected from approximately 431 households, and of these, 175 households were renovated. On August 1, 1997 a new national protocol, which included urine monitoring, was implemented and changes were made in the minimum and maximum levels deemed safe. From August 1 to December 31, 1998, 109 homes were environmentally sampled and urine samples were collected on 81 of these households. Of these 81 households, 37 were classified as "No Further Action," 33 required urine monitoring, and eleven households were relocated. There have been over 1,200 people who have participated in the voluntary urine analysis program since its implementation in 1997.

### **Disease Cluster Response**

When a disease cluster is thought to be related to an environmental chemical cause, SEET provides information on possible chemicals that could cause the disease cluster and comparative rates of the disease at the parish, state, and national levels.

### Coteau Childhood Leukemia

Public concern about childhood leukemia in the community of Coteau, Louisiana (in Iberia parish) was brought to the attention of SEET in May 1996. SEET has assessed the occurrence of childhood leukemia in the area of Coteau with the assistance of the Louisiana Tumor Registry. It has been determined that the incidence of childhood leukemia in Coteau is unusual, both spatially and temporally.

SEET began a population-based case-control study of childhood leukemia in a four parish area consisting of Iberia, Lafayette, St. Martin and Vermilion parishes. These four parishes were selected as the study area to provide a larger number of cases and to increase the probability of including children from neighboring areas who may have spent time in Coteau even though they did not live there.

A case in the OPH study is defined as a child who was diagnosed with leukemia between January 1, 1983 and December 31, 1997 while living in Lafeyette, Iberia, St. Martin, or Vermillion parish. The child must have been born in one of the four parishes and must have been less than 15 years old at the time the leukemia was diagnosed. Information on children with leukemia has been obtained from the Louisiana Tumor Registry and the Acadiana Tumor Registry. There have been 37 known cases being investigated by SEET as of January 1998 in the four-parish area.

A detailed survey instrument (questionnaire) has been developed by SEET to identify risk factors associated with childhood leukemia. A qualified interviewer has been hired from the Lafayette area to conduct all interviews with cases and controls.

### **Cancer Mortality Trend Analysis**

There has been concern for some time about whether industries along the Mississippi River between Baton Rouge and the Gulf of Mexico contribute to elevated lung cancer rates in the area. SEET is completing a trend analysis of the Lower Mississippi River corridor to provide more accurate information to address this concern. Cancer rates, demographic factors, and industrial development have been tracked over 30 years, from the 1960s to the 1990s.

### Cancer Mortality

Preliminary analysis of the data reveals that most of the average annual age-adjusted mortality rates (1960-1993) are nearly equal for the urban portion of the study area and the study area as a whole (the Lower Mississippi River corridor). This is expected since the urban area had most of the population base (80%) of the entire eleven parish region (see map of study area following this section). There were no statistically significant excesses or deficits of cancer deaths in the urban area as compared with the entire study area. However, lung cancer death rates for African-American males and white females in the urban area were higher than, but not significantly different from, the entire region. Most of the average annual age-adjusted mortality rates were nearly equal for the rural region when compared with the entire study area (1960-1993). Also in the rural region, stomach cancer was significantly elevated in African-American males, and lung cancer death rates for white males were higher than, but not significantly different from, the entire region.



### **Demographics**

According to information obtained for the census years 1960, 1970, 1980 and 1990, more than 80% of the population in the study area has lived in the area since the 1960s, and more than 60% of that population is white. The African-American population in the study area has declined in rural areas and grown in urban areas. Median family income in the study area increased from \$4,720 in 1960 to \$29,512 in 1990. Since 1970, median family income increased by more than \$10,000.

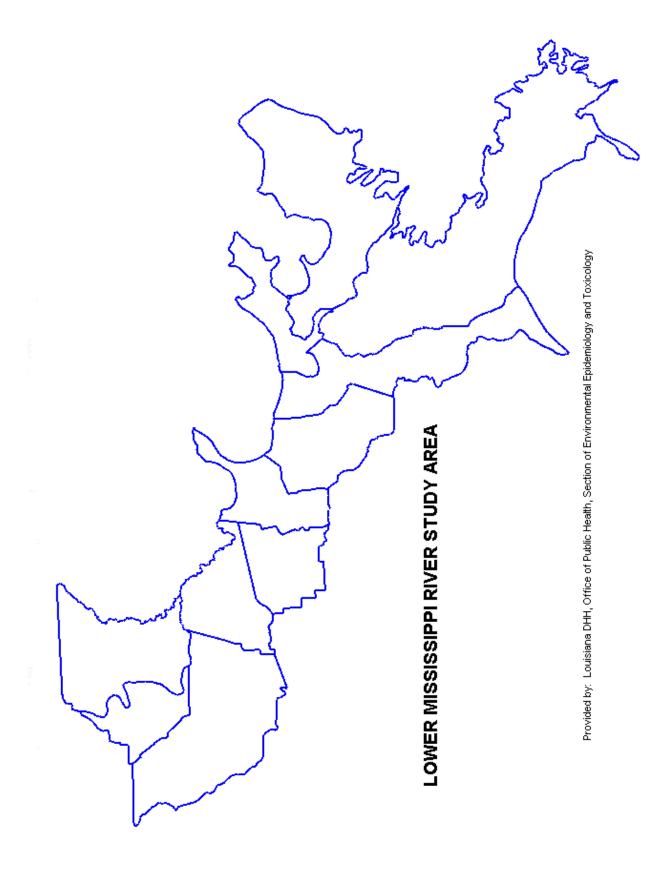
### **Industrial Mapping**

The industries in the Lower Mississippi River corridor are distributed into twelve clusters (three or more industries in each cluster) spread among seven of the eleven parishes. In the early 1950s there were 15 industries in the corridor; by 1994, there were 92. Manufacturing industries in the area with over ten employees were categorized according to the potential cancer risk they posed. Between 1988 and 1994, the number of industries emitting known human carcinogens dropped from 42 to 36.

### **Mercury Blood Screening**

In 1998, 313 individuals from selected parishes in Louisiana participated in a blood mercury screening. Ninety-eight percent of the study participants were within an expected range of mercury blood levels. The remaining two percent of participants exhibited slightly elevated mercury levels and were advised to decrease fish consumption.

The outcome of this investigation is a health risk assessment to be conducted in 1999, which will assess the exposure status of subsistence fishermen and their families as it relates to blood mercury levels.





### N. VITAL STATISTICS

Vital statistics data provide a body of information that is invaluable for monitoring the health of Louisiana's residents. These data are collected via birth, death, fetal death, abortion, marriage, and divorce certificates. Collection and processing of vital statistics information is the responsibility of the VITAL RECORDS REGISTRY in the OFFICE OF PUBLIC HEALTH, DIVISION OF HEALTH INFORMATION.

A large number of health status indicators rely on vital statistics data. These indicators include infant death rates, numbers of low birthweight infants, percentage of mothers lacking adequate prenatal care, teen birth rates, homicide and suicide rates, rates of death from AIDS and motor vehicle injuries, and many others. Vital statistics data are used by both the public and the private sectors to identify health needs in the population and to target effective health interventions. Vital statistics health status indicators are also an important component in measuring achievement of Centers for Disease Control Healthy People 2000 objectives.

The role of the State Center for Health Statistics in the Division of Health Information is to analyze vital statistics data and distribute findings to government programs, community organizations, universities, and interested members of the general public. The Center accomplishes this through publication of the annual *Louisiana Vital Statistics Report*, and through response to ad hoc requests for data and information. The Center also is responsible for compilation of information from Department of Health and Hospitals programs to create the legislatively mandated annual *Louisiana Health Report Card*.

### 1997 Statistics

Please refer to "Chapter I: Population and Vital Statistics."

### Reports

The annual *Louisiana Vital Statistics Report* is available to the public through the State Center for Health Statistics. The Center maintains databases of births, deaths, fetal deaths, abortions, marriages, and divorces. It responds to data requests from communities, agencies, and the general public through generation of ad hoc reports and analyses.

## O. Public Health 9 and Family Planning (PH-9/FP) Project

The <u>Public Health 9 (PH-9) and Family Planning (FP) project</u>, carried out by DHH, Office of Public Health, Division of Health Information, began by exploring the feasibility of replacing the central data entry and billing services, for which OPH is now contracting at a cost of more than \$600,000 per year, with a more modern system that would reduce costs and still provide a higher quality data stream, faster billing and reimbursement, and on-site and central management support systems. The scope of the project was 135 public health clinics, 300,000 patients, 650,000 visits, and 2.6 million services per year.

A major pre-existing effort to modernize the paper forms used by 9 Public Health programs in parish health units (referred to as the PH-9 forms) was just coming to completion in early 1997. These forms were used to capture the information needed for reimbursement of the eligible services provided in the clinics, and for reporting programmatic information required by the program's federal funding agencies.

The resulting new PH-9/FP paper forms are used to collect program data on patients and services in the following OPH programs: Maternal and Child Health, Children's Special Health Services, Eye Health, Communicative Disorders, Genetic Diseases, Immunizations, Tuberculosis Control, Sexually Transmitted Diseases, and Family Planning. Each of the programs designed their own forms in order more accurately to collect, maintain, and retrieve clinical and demographic data for funding and public health purposes, resulting in 11 program-specific forms, each much simpler than the old combined form to be replaced. Since the new forms required a revised data capture process, transition to the new forms represented an opportunity at the same time to engineer the system correctly to capture data at the point of service (POS) and provide timely clinical and management data to the local and regional managers.

Division of Health Information designed, developed, tested, and deployed an NT 4.0-based Dial-Up Networking (DUN) and distributed Access information system, where data were entered in the clinics by existing staff who know the clients. These data are uploaded and merged into a central database nightly for billing, and yet are immediately available to the local clinic management for production control and morbidity assessment in the clinic population. Clinic personnel were able to enter a full clinic visit record in 25 seconds at the end of the first week of deployment. The application supports electronic billing and posting of remittance advice, and reduced mean reimbursement delay by more than a month.

The application was developed for less than \$20,000 and requires less than 2 full time persons (\$70,000) to operate the central billing, and steady state Information System (IS) staff time is minimal. A current support contract for \$24,000 for the application will decline in dollar amount in the following years. The \$10,000 communication cost for uploading data will go to zero when the Wide Area Network (WAN) reaches the Parish Health Units (PHUs) in this next year. A data entry operator for the Office of Public Health lab currently provided by the contractor will need to be replaced for approximately \$25,000. As before, other fiscal audit staff remain necessary for quality control, projections, and other analyses. Ideally, fiscal staff should be increased to maximize benefits from the data, as such staff may well pay for itself in operational savings.

The new PH-9 hardware, software, and communication systems have been deployed statewide but are currently being used in only three of the nine regions, so the previous system and contracted billing services continue to provide for the rest of the state.

### P. STATE HEALTH CARE DATA CLEARINGHOUSE

Act 622 defined the State Health Care Data Clearinghouse to enable the collection of health care and health industry-related data. In prioritizing the mandates of Act 622, the Office of Public Health, Division of Health Information considered the various health information data streams already in existence and the data collection experiences of some 36 other states, and elected to focus its initial data collection efforts on hospital discharge data. For the most part, the targeted data are a natural by-product of hospital billing activity and are already widely available in a reasonably standard electronic format. The collection of these data will place the smallest additional burden on the state's medical care providers, while speaking directly to the legislatively recognized need to understand "patterns and trends in the availability, use, and charges for medical services."



Accordingly, the Office of Public Health developed Rule LAC 48:V. Chapter 151 in conjunction with an advisory panel composed of representatives of the health care industry, academia, and state government. The Notice of Intent for Rulemaking was published in the July 1998 issue of the Louisiana State Register and the Final Rule was published in the October 1998 issue. The Rule defined the core Hospital Discharge Data elements to be reported to the Office of Public Health in accordance with existing national and international data standards; developed standards of accuracy, quality, timeliness, economy, and efficiency for the provision of data; identified the most practical methods of collecting, transmitting, and sharing data; and outlined appropriate rules and regulations to ensure data confidentiality.

### Activities to date include:

- Conducting three-month phone survey of approximately 180 Louisiana hospitals regarding their transmittal capacity and data availability.
- Providing information to hospitals regarding regulations and submittal procedures by newsletter, phone, and e-mail.
- Developing Oracle database repository to house the data securely.
- Developing and testing a new software, the Hospital Inpatient Discharge Data Quality Assurance Tool (QAT). The primary purpose of the QAT will be to help improve both data quality and timeliness. The secondary purpose is to provide a simple data capture tool for hospitals that still have paper billing systems.
- · Conducting the first training session for hospital staff in the use of the QAT.
- Developing a project management database in Access that includes survey and hospital contact information, waiver and extension data, submission log, and error reporting.
- Currently receiving the first data submissions from hospitals for discharges occurring between 1/98-6/98. Out of the 180 licensed hospitals, 55% submissions have been received, 38% have requested extensions, and 7% have general waivers.
- Checking data for errors through use of the QAT, and providing the first set of error reports to the hospitals. This initial submission and error checking process will help hospitals to improve the quality of their data, especially with regard to future submissions.

The population-based health care data collection authorized by Act 622 offers Louisiana and its health care providers a first opportunity to plan and operate intervention strategies systematically that address the antecedents of death. The State Health Care Data Clearinghouse is also planning to work with hospitals and other facilities across the state to develop a statewide hospital emergency room data system and other data sets to provide an even more complete picture of Louisiana health, and to address the urgent concerns of the increasing threat of bioterrorism.



# IV. PREVENTIVE HEALTH OUTREACH AND SERVICE PROGRAMS



The Department of Health and Hospitals provides Louisianians with a variety of Preventive Health Outreach Programs targeted to assure the health of its most vulnerable citizens: infants and children, adolescents, women, families, and persons suffering from infectious diseases, substance addictions, and mental impairment. The following programs provide needed health care to thousands of individual Louisiana residents. In doing so, they are essential to the health of the state as a whole.

## **Programs Targeting Infants, Children, and Adolescents**

### A. CHILDHOOD IMMUNIZATION INITIATIVE - SHOTS FOR TOTS

The Shots for Tots Program, through the Immunization Program of the Office of Public Health, was developed to improve immunization levels among infants and toddlers. The program has four major methods to improve children's immunization levels: (1) service delivery, (2) information and education, (3) assessment, and (4) coordination and oversight.

- Service delivery is increased by increasing the number of towns and cites where immunizations
  can be received, by reducing barriers for families, by providing evening and weekend immunization clinics, and by improving communication among providers.
- Information and education is provided to health care providers and to parents. Health care
  providers are informed about the correct use of vaccines, and parents are educated about the
  importance of having their children immunized on time.
- Assessment is used to provide feedback to providers about their immunization practices and about the concerns of families using their services.
- Coordination and oversight establish a central point of responsibility to help improve all of the methods listed above.

<u>Shots for Tots</u> has improved access to immunizations, decreased cost to families, improved public awareness of the need for immunizations, and educated health care providers about proper immunization practices. The following chart illustrates the effectiveness of the <u>Shots for Tots Program</u>. Since its inception in 1992, immunization levels among 2-year-old children receiving care at public health units have increased by over 26 percent.

Immunization Levels Among Two-Year-Old Children Receiving Care at Public Health Units Louisiana, 1992-1998	
1992	55%
1993	59%
1994	64%
1995	75%
1996	79%
1997	81%
1998	82%



## B. SUDDEN INFANT DEATH SYNDROME (SIDS)

The Department of Health and Hospitals, Office of Public Health, Sudden Infant Death Syndrome (SIDS) Prevention and Case Management Program is designed to increase public awareness on the topic of SIDS and to provide education to reduce the risk of SIDS deaths. Educational material on SIDS risk-reduction has been developed for populations at risk. Grief counseling is made available to all families who have experienced the death of an infant due to SIDS.

In addition to public and professional education and grief counseling, standard data are collected on each case with the hope of identifying preventable circumstances that are associated with unexpected deaths in infancy. A program to improve the investigation of unexpected infant deaths through the training and certification of death scene investigators was begun in 1996. Over 87 investigators from coroner offices and police departments have been trained in death scene investigation in cases of unexpected deaths in infants.

# C. Hearing, Speech, and Vision Program: Sound Start Program for the Early Identification of Hearing Impairment in Infants

Vision problems affect one in 20 preschoolers and one in 4 school age children. More than one in twenty-five preschoolers suffer from some type of communication disorder, i.e., speech, language, and/or hearing impairment. Four out of every 1,000 babies born have a significant hearing loss.

The goal of the Maternal & Child Health, Hearing, Speech, and Vision Program is to identify these problems in children as early as possible. A child's vision, hearing, and language development are the most essential skills required for learning and developing. Research shows that children who have hearing loss identified at birth and who are successfully enrolled in early intervention programs can reach appropriate developmental levels by the time they begin school. Early intervention has profound lifelong benefits for infants and toddlers with hearing impairment and for their families, and it results in containment of costs of special education and other services provided by the state.

OFFICE OF Public Health staff trains volunteers, teachers, and nurses to perform vision and hearing screenings in Headstart centers, preschools, day care centers, and public and private schools. Hearing and vision equipment is available for loan to these facilities.

The <u>Sound Start Program</u> under the Hearing, Speech, and Vision Program works through each community in the state to assure that every birthing hospital performs hearing screening tests for newborns, as required by law. The program has been implemented without specifically allocated funding, and has enjoyed phenomenal success, with the community involvement of professionals, physicians, hospital staff, education personnel, civic and charity organizations, parents, and the Deaf community.

Out of 73 birthing hospitals in Louisiana, all comply with the requirements of the law except for 4 hospitals with exemptions. The number of hospitals unable to comply with the law has steadily decreased from 14 in 1994, with the help of Regional Task Forces, local civic groups, and charities that have donated equipment and assisted hospitals to find resources. In addition, 39 hospitals



now voluntarily perform screening on every birth at their facility, going beyond the requirements of the law. Approximately 52% of the children born in Louisiana receive a hearing screening before they are discharged from the hospital.

Louisiana has received national recognition for its newborn hearing screening program. It is among the top 4 states in the country in the number of hospitals providing universal hearing screening. The average age of identification of hearing loss across the United States is 30 to 36 months. Since the beginning of the <u>Sound Start Program</u> in 1994, the average age for children identified through this program has remained below 3 months of age.

### D. CHILDREN'S SPECIAL HEALTH SERVICES

CHILDREN'S SPECIAL HEALTH SERVICES (CSHS) is a program that provides services for eligible children and families with serious disabilities that significantly limit major life activities. These children have complex medical conditions that may be rare, severe, or disabling and that require pediatric subspecialty services on an on-going basis.

Some of the products and services provided by the Children's Special Health Services program are medications, durable medical equipment, home health care, physical therapy, hospital care, parent training, and case management to coordinate primary and specialty services. There are nine regional CSHS clinics throughout the State of Louisiana, which together served 9,319 children in 1997 and handled a volume of 23,039 clinic visits.

### E. SAFE KIDS COALITION

The DHH, Office of Public Health, Injury Research and Prevention Section supports ongoing community-based injury prevention programs. One of these is the <u>SAFE KIDS Coalition</u>, which conducts prevention activities for unintentional injuries in children.

At the state level, the <u>SAFE KIDS Coalition</u> works to inform the public that unintentional injuries are the leading cause of death for children under age 14. The Coalition also works to organize and promote policies and programs to prevent childhood injury. At the community level, 10 local chapters sponsor injury prevention education activities for community members.

Examples of these injury prevention education activities include hands-on car seat safety clinics, where trained specialists check for proper car seat installation and educate parents on how to use car seats correctly, and the promotion of bike helmet use through reminder tags that are hung on bicycle handlebars. Other examples of educational programs available through <u>SAFE KIDS</u> include smoke detector use, pedestrian safety, and toy safety.



### F. CHILD CARE HEALTH CONSULTANT PROGRAM

The American Academy of Pediatrics/American Public Health Association recommends that each child care facility should utilize the services of a health consultant to provide ongoing assistance in the area of health. Louisiana was one of the first states to institute such a program.

The Maternal and Child Health Program of the Office of Public Health coordinates the activities of the Child Care Health Consultant Program. By combining professional health experience with knowledge and training in child care, consultants work to support, assist, and problem solve with child care providers in order to improve the safety and quality of child care. Consultants serve as a source of education, guidance, and support to child care facilities; provide technical assistance; act as health resource and referral persons; and provide access to health care information. This program also has the advantage of bringing together a multi-disciplinary network of both public and private health professionals from a variety of settings to address local community needs.

To date, there are 150 health professionals who have been trained and are certified by the DHH, Office of Public Health and the Department of Social Services, Bureau of Licensing. In 1998, 107,620 infants, children, and adolescents were seen in a total of 228,366 visits. More than 17,000 child care providers have received some health and/or safety training.

## G. Prevent Abuse and Neglect through Dental Awareness (P.A.N.D.A.)

The <u>P.A.N.D.A.</u> (Prevent Abuse and Neglect through Dental Awareness) program was formed through the efforts of the Oral Health Program in the Office of Public Health. The <u>P.A.N.D.A.</u> coalition is maintained by community members and is chaired by the president of the Louisiana Chapter of the Academy of Pediatric Dentistry. This program aims to standardize the level of training and education of dental care professionals, and to provide to dentists and hygienists throughout the state additional information that will assist them in detecting and reporting suspected child abuse and neglect.

### H. CHILD HEALTH PROGRAM

The <u>Child Health Program</u>, from the Maternal and Child Health Program of the Office of Public Health, is a program that offers preventive health services to infants and children who are unable to access such services because of geographic or financial barriers or lack of providers.

This program provides periodic health appointments, which can involve a history and physical examination; immunizations; assessment of growth; assessment of developmental status; laboratory screening for PKU, congenital hypothyroidism, sickle cell disease, anemia, urinary tract problems, and lead poisoning; screening for vision, hearing, or speech problems; and parental counseling and education. Nutritionist and social services are available in addition to medical and nursing services.

In 1998, 107,620 infants, children, and adolescents were seen in a total of 228,366 visits. Approximately 40% of the children seen were uninsured by either Medicaid or private insurance.

### I. ADOLESCENT SCHOOL HEALTH INITIATIVE

Pursuant to a legislative request, the DHH Office of Public Health (OPH) conducted a study in 1990 that concluded that the causes of adolescent deaths and illnesses could be reduced or prevented through greater adolescent health education and improved teen access to primary/ preventive health care and professional counseling. Therefore, in 1991 the Louisiana State Legislature created the <u>Adolescent School Health Initiative</u> to facilitate the development of comprehensive health centers in public middle and senior high schools.

The <u>School-Based Health Care Program</u>, officially known as the <u>Adolescent School Health Initiative</u>, is directed by the DHH Office of Public Health, Maternal and Child Health Program. School-Based Health Centers (SBHCs) are an integral part of the <u>State's Comprehensive School Health Program</u>, which also encompasses education, school environment, nutrition, physical fitness, and parent and community involvement.

Sources of funding for the School-Based Health Centers (SBHCs) include OPH State General Fund, Maternal and Child Health Block Grant, Robert Wood Johnson Making the Grade, local inkind contributions, and Medicaid reimbursement.

School-Based Health Centers are established by a sponsoring agency (the grantee), which is responsible for management of the health center. Hospitals, medical schools, health departments, youth-serving agencies, community organizations, or school systems may be a sponsoring agency. Each SBHC's staff includes a licensed physician, a nurse or nurse practitioner, a mental health counselor, a clinic administrator, and support staff, who all work in collaboration with the counselors, social workers, psychologists, and speech, physical, and occupational therapists on school campuses. Services provided include preventive health care, medical screenings, sports and employment physicals, treatment for common simple illnesses, referral and follow-up for serious illnesses and emergencies, mental health counseling, immunizations, and preventive services for high-risk conditions, such as pregnancy, sexually transmitted disease, drug and alcohol abuse, violence, and injuries.

In the 1997-98 academic year, 30 School-Based Health Centers were operational in 14 parishes, providing services to students at 65 schools. By the end of the 1998-99 school year, two new full-time and four part-time sites in four additional parishes are expected to open. Many sites have expanded services to primary and elementary feeder schools. A total of 37 Louisiana parishes in all nine state regions have thus far participated in SBHC development.

In the 1997-98 school year, 21,767 students received services, and there were 139,871 visits to the centers.

## J. LOUISIANA PREGNANCY RISK ASSESSMENT MONITORING SYSTEM (LAPRAMS)

<u>LaPRAMS</u> is an on-going, population-based surveillance system designed to identify and monitor selected maternal behaviors that occur before and during pregnancy and during a child's early infancy. It is a joint effort between the Office of Public Health (OPH) and the Centers for Disease Control and Prevention (CDC). The CDC and the OPH Division of Health Information provide technical assistance to LaPRAMS. The OPH Family Planning and Maternal and Child Health programs provide all funding for the project.



<u>LaPRAMS</u> data are collected by means of mail surveys and telephone interviews. Louisiana women who have had a recent live birth are randomly selected to participate in <u>LaPRAMS</u>. Since data collection was initiated in October of 1997, 4,176 women have been selected to receive the <u>LaPRAMS</u> questionnaire. Approximately 65% (2,707 out of 4,176) women have completed the survey. The average response rate achieved during the first six months of data collection was 65%. Since that time, an average response rate of 71% has been maintained.

<u>LaPRAMS</u> data will be used to supplement information from vital records and to generate information for planning and assessing perinatal health programs around the state. Findings from the data will also be used to develop programs designed to identify high-risk pregnancies. In addition, <u>LaPRAMS</u> data will enhance the understanding of maternal behaviors and the relationship between these behaviors and adverse pregnancy outcomes, such as low birth weight and infant mortality.

The <u>LaPRAMS</u> data analysis phase was recently initiated. During 1999, <u>LaPRAMS</u> data will be used to measure federal block grant performance indicators for both Maternal and Child Health and Family Planning. Later this year, an <u>LaPRAMS</u> surveillance report will be provided to OPH program staff. This report will present OPH program administrators a fundamental yet important overview of maternal behaviors and experiences in Louisiana. It will also afford OPH programs the opportunity to identify future LaPRAMS analyses tailored to supply more detailed health information.

### K. Women's Preventive Health Program

The Women's Preventive Health Program (WPHP) is designed to improve longevity and the quality of life for women in Louisiana by reducing morbidity and mortality due to preventable causes. The program's mission is accomplished via the following activities:

- Screening for medical conditions that can be effectively treated, including breast cancer, cervical cancer, hypertension, diabetes, obesity, and colon cancer
- Health guidance and counseling to influence positively those health behaviors known to be associated with poor health outcomes
- Empowerment of community-based organizations to deliver the message of prevention to female peers and thus to expand the program throughout the state.

The last year has been very effective in the communities throughout Southeast Louisiana, an area severely affected by many chronic diseases. More than 1,500 women were involved in outreach and screening activities. Since the program's inception, four abnormalities have been found and successful treatment strategies pursued.

The WPHP provides preventive health services only; women who have an established disease requiring treatment and those with signs and symptoms of disease are referred to their personal physician or public health care provider. Eligibility for specific screening services is based on age, risk factors, and economic status. An integral component of the program is the collection of data regarding risk factors, screening, and screening results to assure that women who need treatment reach a treatment provider.

The WPHP is working through public and private partnerships with other health providers to provide services to women. By year-end, screening services should be available statewide.

## **Programs Targeting Families**

### L. HEALTHY FAMILIES—HOME VISITATION PROGRAM

The Maternal and Child Health Program of the Office of Public Health has undertaken home visitation programs to impact Louisiana's high rates of infant mortality, low birth weight, and child maltreatment. Currently there are four home visiting programs that follow the <u>Healthy Families Program</u> developed in Hawaii, which utilizes paraprofessional home visitors. This model seeks to prevent child abuse and neglect by focusing interventions on promoting child growth and development, modeling and fostering positive parenting skills and parent-child interactions, assuring provision of needed health care, and developing support systems for families.

During fiscal year 97-98, MCH worked diligently to establish the groundwork for the implementation of the <u>David Olds Nurse Home Visitation Model</u> in two pilot programs to begin in Louisiana in January 1999. The program is for first time mothers of low socio-economic status. Nurses follow a very strict program protocol that calls for regular visits to the family from twenty-eight weeks of pregnancy until the infant is two years of age. This model was chosen by MCH because of its proven effectiveness as a preventive intervention. Clinical trials and longitudinal studies have shown that this model of prevention significantly reduced by 79% the verified reports of child abuse and neglect, reduced by 31% the number of subsequent births, and increased by 83% the rates of labor force participation. MCH worked closely with the Louisiana Children's Cabinet to promote the program for future statewide implementation, and this program was chosen as one of the top program priorities recommended by The Children's Cabinet. With the groundwork laid, MCH is looking forward to successful implementation of the two pilot programs during fiscal year 98-99 and to statewide implementation shortly thereafter.

### M. Public Campaign for Parenting Education & Child Abuse Prevention

The Louisiana Council on Child Abuse (LCCA), in conjunction with the DHH, Office of Public Health, is in the third year of a statewide campaign designed to reach parents with educational messages about parenting and to encourage the use of a toll-free, informational support and referral resource for families: LCCA's <u>HELPLINE</u> (800-348-KIDS). Campaign themes have addressed positive communication, positive discipline, and stress prevention for parents. Calls to the <u>HELPLINE</u> have increased by 65% compared with pre-campaign totals.

In order to emphasize the educational topics and to conduct training sessions in their communities, a volunteer Speakers Bureau has been established in major cities throughout the state. The trained volunteers include representatives from the Office of Community Services, law enforcement, the media, and health care. Last year over 3,000 individuals were reached through the Speakers Bureau.

In addition, the Maternal and Child Health Program (MCH) of the Office of Public Health is training all public health nurses and public health social workers in <u>Bright Futures</u>, a nationally recognized set of guidelines for child health supervision. The curriculum of <u>Bright Futures</u> is designed to promote and improve the health, education, and well-being of children, adolescents, families, and communities.



Furthermore, in a cooperative effort between the MCH and Women, Infants, and Children (WIC) Nutrition Program, new <u>Parenting Education Cards</u> have been produced. These cards offer ideas for parents on how to deal with the difficult aspects of parenting by using actual quotes from almost 800 Louisiana parents who were surveyed. These cards are available to all parents visiting the public health units and to private community resources that request provision of the cards to their offices.

# N. LOUISIANA'S SERVICE SYSTEM FOR PERSONS WITH DEVELOPMENTAL DISABILITIES— DEVELOPMENTAL CENTERS AND THE COMMUNITY SERVICES REGIONAL OFFICES

Louisiana's Department of Health and Hospitals, Office for Citizens with Developmental Disabilities (OCDD), administers the MR/DD Service System for individuals with mental retardation and/or developmental disabilities through the nine developmental centers and eight regional offices. The Department of Health and Hospitals also contracts the Capital Area Human Services District (CAHSD) and the Jefferson Parish Human Services Authority (JPHSA) to arrange for community-based services for the areas under their authority. The developmental centers provide residential services and other related services to the persons who reside at these facilities. The Community Services Regional Offices provide, through contract with private provider agencies, an array of community-based services including diagnosis and evaluation, family support, vocational and habilitation, case management, and supported living services. Agreements for family support services such as respite and personal care assistance are also provided through agreements with families.

Community Services Regional Offices Louisiana, 1998									
Region Office Administrator									
Region 1	New Orleans	OCDD							
Region 2	Baton RougeCAHSD	CAHSD							
Region 3	Thibodaux	OCDD							
Region 4	Lafayette	OCDD							
Region 5	Lake Charles	OCDD							
Region 6	Alexandria	OCDD							
Region 7	Bossier City	OCDD							
Region 8	Monroe	OCDD							
Region 9	Mandeville	OCDD							
Region 10	MetaireJPHSA	JPHSA							

# **Programs Targeting Infectious Diseases**

# O. Tuberculosis (TB) Prevention and Outreach

During a recent National Tuberculosis (TB) Controllers Workshop, Kenneth Castro M.D., Director of the Division of TB Elimination at CDC, stated, "the United States is back on track towards the elimination of TB. However, the national trend masks areas of ongoing concern, in particular sporadic outbreaks of drug resistant disease, high incidence 'pockets of infection', the introduction of disease among foreign-born persons, and disturbing signs of possible renewed complacency on the part of the public, the body politic, and some segments of the health community."

The Department of Health and Hospitals, through the Office of Public Health's TB Control Section, addresses these areas of concern by monitoring the treatment of reported cases of TB. Disease Intervention Specialist (DIS) staff routinely support this effort through the provision of <u>Directly Observed Therapy (DOT)</u> - a service provided to ensure compliance with and completion of treatment for all patients, public or private. DIS staff also investigate each case of TB to assure timely identification and evaluation of contacts to TB.

Of those patients who have been designated "closed," 97% completed therapy in 1997 as compared with the 96% completing therapy among "closed" cases in 1996. This increase was due, in part, to both the intense DOT efforts of DIS staff and to the utilization of incentives and enablers.

# P. SEXUALLY TRANSMITTED DISEASE (STD) AND HIV/AIDS PREVENTION PROGRAMS

The DEPARTMENT OF HEALTH AND HOSPITALS, OFFICE OF PUBLIC HEALTH, aims to prevent the spread of STDs and HIV/AIDS through a variety of methods, including prevention education; HIV counseling, testing, referral and partner notification; STD treatment and control, including syphilis partner notification; peer programs; street and community outreach in selected zip codes areas; and statewide condom distribution via businesses in communities with high rates of sexually transmitted diseases and HIV/AIDS.

STD control is a labor-intensive task, relying on the rapid location of a person's sexual partners in the community to halt further spread of the disease. To prevent the spread of disease, the STD CONTROL PROGRAM conducts four basic activities:

- Prevention activities education and provision of information to patients and the general public about STDs and the use of condoms
- Clinical services testing, diagnosis, and treatment of patients seen in the clinics
- Epidemiology surveillance, location, and referral of persons suspected of having an STD, for examination and early treatment
- Targeted screening as a mechanism to discover infections in certain populations and determine disease prevalence.

In order to reach people who have the highest risk of infection, the STD Control Program works with a number of other health-related programs, including Maternal and Child Health, Family Planning, correctional institutions, substance abuse centers and other facilities where STDs may be prevalent. Collaboration with these programs and efforts of STD field personnel resulted in the screening of over 200,000 people for STDs in 1997.



HIV/AIDS prevention activities and target populations are determined by the statewide HIV Community Planning Group, whose membership ranges from public health and social service professionals to HIV-infected individuals and those at risk for acquiring HIV.

Currently, the Office of Public Health HIV/AIDS Program provides support and technical assistance to 22 community-based organizations (CBOs) that target high risk populations across the state. HIV antibody testing and counseling takes place in over 360 sites statewide, including public heath units, drug treatment centers, and CBOs. In 1996, over 12,400 HIV antibody tests were conducted in public prenatal clinics across the state. In addition, a referral tracking system has been developed for pregnant and postpartum HIV-infected women and their infants.

In 1997, the Statewide HIV/AIDS Hotline received over 9,500 calls requesting information regarding HIV/AIDS, STDs, and referrals. Furthermore, the Office of Public Health distributed nearly 500,000 HIV/AIDS and STD prevention education materials to parish health units, CBOs, and other agencies.

# Q. STD, TB, AND HIV/AIDS SCREENING THROUGH THE ALCOHOL & DRUG ABUSE PROGRAM

The Office of Alcohol and Drug Abuse (OADA) continues to offer outreach services to Intravenous Drug Users (IVDUs) statewide, using the indigenous, behavioral, and/or other outreach models. Ongoing outreach efforts involve networking with other agencies to provide access into the local communities. A variety of community sites are used, including but not limited to United Way, Alcoholics Anonymous/Narcotics Anonymous groups, businesses, mental health clinics, health clinics, charity hospitals, correctional facilities, and jails. Activities include education, prevention, condom distribution, clean needle demonstrations, medical evaluations, and referrals for treatment.

OADA maintains an on-going campaign to educate citizens about the proper use of condoms, and distribution of condoms to adults is undertaken in all regions. Information is distributed in the areas of education, testing, safe sex, and disease treatment. OADA participates on the Statewide HIV Community Planning Group (SCPG) and two subcommittees at the regional level: Nominations and Special Needs. The goal of the statewide group is to fit the guidelines of community planning. The committee develops and submits an annual grant application to the Center for Disease Control (CDC) and keeps Louisiana residents informed about HIV infection and prevention. The committees include individuals with expertise in education, substance abuse, health, public health, and special populations with representatives from each region (who generally represent at-risk communities), and representatives from the Department of Corrections, Education, and OADA. The SCPG meets four times per year. Epidemiological data are collected allowing public input via public forums to develop a profile, target populations, and strategies.

# <u>Programs Targeting Substance Abuse, Violence, and Mental Health</u>

# R. ALCOHOL, DRUG, TOBACCO, AND OTHER PREVENTION ADDICTION SERVICES

The Division of Prevention Services, Office of Alcohol and Drug Abuse (OADA), Department of Health and Hospitals is responsible for administering alcohol, tobacco, and other addiction prevention services. There are eight regional prevention offices responsible for coordinating, implementing, and promoting prevention efforts. All services provided on the regional level are outreach based. Prevention services are provided to individuals, families, schools, communities, policy makers, and other interested groups or programs.

There are currently 31 contractual prevention programs funded through OADA. The scope of these contracts varies under the six federal primary prevention categories, which are Information Dissemination, Education, Alternative Activities, Community-Based Process, Environmental Initiatives, and Identification and Referral. OADA also funds eight youth tobacco prevention/community coalition development contracts. These contracts address the sale of tobacco products to persons under the age of 18. In December of 1996 the noncompliance rate for tobacco sales to minors was 75%. The current non-compliance rate is 20%. The Office achieved this goal three years ahead of schedule.

During 1998, the Division of Prevention Services, engaged in a series of activities geared toward preventing alcohol, drugs, tobacco, and other addictions of adults and minors in the State.

The Office hosted a one-day meeting with ten college and university presidents and chancellors and plans to contract with them to address the issue of drinking behavior among college students.

The Office conducted the <u>Communities that Care Survey</u> in over 90% of the schools in the state. This survey identifies the risk and protective factors around the areas of alcohol, tobacco and other drug abuse. The results will be available in April 1999.

A survey of alcohol sales to minors was completed in 1998. The results were sale rates of 43% from alcohol sales of on-premise consumption (bars and restaurants) and 24% from off-premise (retail) consumption.

The Office of Alcohol and Drug Abuse was awarded two grants totaling \$760,000 to address underage drinking from the federal Office of Juvenile Justice and Delinquency Prevention. The first grant will address community and college drinking behaviors. The second grant will target three communities, Hammond, Covington, and Thibodaux.

OADA participates in a three-way collaborative pilot project between the Office of Public Health, and the Office of Mental Health for jointly creating and funding a full-time experienced Board Certified Social Work professional on the staff of a school-based health center (SBHC) serving grades 7-12. The staffs' role, as a member of a multidisciplinary team, is to help create a psychosocially healthy school environment for adolescents and to provide preventive substance abuse and mental health services and crisis counseling to students at risk for engaging in harmful behaviors. This one-year pilot project began July 1998.



## S. VIOLENCE PREVENTION

The Injury Research and Prevention Section's <u>Violence Prevention Program</u> applies public health tools to the prevention of violence – using epidemiology to define risk factors and risk groups to target with prevention interventions, evaluating those interventions, and disseminating the interventions that work. The Program is currently developing an information base on risk factors and programs that work. Future directions for the Program include securing funding for the development of mechanisms and materials to implement the best practices in violence prevention in Louisiana communities.

# T. SUICIDE ASSESSMENT

Mental Health professionals conduct a suicide assessment of any consumer who presents to the system with emotional or behavioral problems, or with symptoms of severe mental illness. Additionally, all paraprofessionals who work with the mentally ill client are trained in the mental health assessment of potential suicide. These assessments include current ideations of self-harm, plans for self-harm, and whether the consumer has the means to harm him/herself. Immediate steps are taken to protect that individual when indicated by the mental health assessment of suicide potential. Additionally, the assessment includes past history of suicidal ideation, an assessment of the severity of previous attempts, and the emotional and environmental factors surrounding previous suicidal issues for the consumer.

The Office of Mental Health provides a comprehensive crisis intervention program throughout the State for all citizens who may experience thoughts of suicide, as well as other signs and symptoms of a mental health crisis. This system includes crisis phone lines with 1-800 numbers, a <u>Single Point of Entry</u> system for those who need face-to-face evaluation, hospital diversionary programs (such as respite), or acute hospitalization.

#### U. PROGRAMS OF THE OFFICE OF MENTAL HEALTH

The mission of the Office of Mental Health (OMH) is to perform the functions of the state that provide or lead to treatment, rehabilitation, and follow-up care for individuals in Louisiana with mental and emotional disorders. OMH administers and/or monitors community-based services, public or private, to assure active quality care in the most cost-effective manner in the least restrictive environment for all persons with mental and emotional disorders. OMH operates an effective, efficient, comprehensive, integrated, and culturally competent system of mental health services guaranteeing consumer and family involvement so as to meet the needs of adults with serious mental illness and of children with serious emotional disturbance and to reduce the need for out-of-home placement.

#### The Children's Assertive Community Treatment – Region III

This program selects children and youth with at least two previous psychiatric hospitalizations as its top priority. The purpose is to break the cycle of psychiatric institutionalization through an aggressive, skill-based, wrap-around approach to child and family. The program also serves children who have not yet been hospitalized but who are at imminent risk of out-of-home care. Over sixty children have remained out of the hospital over the last three years.



#### **School-Based Mental Health Services**

The Office of Mental Health is actively engaged in the direct support of mental health services in over 160 schools in the state through local mental health centers and in 26 full time School-Based Health Centers. The Office of Mental Health funds mental health staff at the Lake Charles and Baton Rouge SBHC's. Collaborative pilots in funding school-based mental health staff in SBHC's with the Office of Public Health and the Office of Alcohol and Drug Abuse at a New Orleans SBHC show promise for future, jointly funded expansion of this pilot.

Provision of mental health services at the school is proving to be an effective method of intervening in children's lives and preventing the need for more acute outpatient or inpatient services. Over 22,000 children and adolescents received mental health services at school through the local mental health clinic or School-Based Health Center.

#### **Evolutions**

Greenwell Springs Hospital has implemented <u>Evolutions</u>, a partial hospitalization program for adolescents who are experiencing emotional and behavioral problems but do not require inpatient hospitalization. The program serves as an alternative to inpatient treatment and also facilitates the transition from inpatient to outpatient treatment. Intensive therapeutic interventions assist the adolescents to find more effective ways of functioning in the home, school, and community. This program is a collaborative effort with local school systems.

# St. Charles Assertive Treatment (SCAT) Clinic with No Walls

The <u>St. Charles Assertive Treatment Program</u> is a community-based mental health treatment initiative, enhancing service delivery in rural communities and improving the overall quality of life for individuals with severe and persistent mental illnesses. The goal is to prevent hospital recidivism and to allow the consumer to sustain a high quality of life in the community.

The program is accessible to consumers and their families 24 hours a day for crisis intervention. A multi-disciplinary team of professionals and paraprofessionals provides treatment and rehabilitation. This program is specifically designed to assist consumers in their home environment with flexible services. It is very effective as an intervention for consumers with complex needs.

#### **Project Life**

The supported living program, <u>Project Life</u>, utilizes an assertive community treatment model to assist persons with very severe mental health disabilities to live in the community. All persons have been hospitalized at least once in the nine months prior to acceptance into the program, or have experienced multiple hospitalizations within the year preceding admission into the program. Services include housing supports, case management, vocational services, and psychiatric rehabilitation services. Consumers, called community trainers, provide skills training and case management.

# Acute Psychiatric Unit – Washington St. Tammany Parish Continuity of Care

The <u>Acute Psychiatric Unit</u> provides for consumers recently discharged from the hospital to return to their home environment and continue to recover from illness. Consumers who have histories of multiple hospitalizations and complex treatment needs are the primary recipients of these services. Assessments are made during home visits focusing on the patient's general adjustment back to the community. Hospital treatment staff involved in the program are available to the consumer and/or family should the need arise.



#### Medical Center of Louisiana New Orleans (MCLNO) Mental Health Services

#### **Partial Hospitalization Program**

The <u>Partial Hospitalization Program</u> provides a comprehensive range of integrated clinical, rehabilitative, and related services to individuals with severe and persistent psychiatric disabilities who live in the Greater New Orleans area. Family participation is encouraged. If a program member presents to the Psychiatric Triage Unit with a crisis, the <u>Partial Hospitalization Program</u> staff members are notified and often are able to intervene with the patient to prevent hospitalization.

# Assertive Outreach - Rapid Response Team

The <u>Rapid Response Team</u> works with the chronically mentally ill population, using non-traditional methods to reach those who have not been able to benefit from traditional mental health centers and hospitals. The team has pager coverage to provide 24-hour service for their patients. If a participant presents to the Psychiatric Triage Unit at MCLNO, the team member attempts to intervene and avoid further hospitalization. The close contact with the consumers allows the team to monitor medication compliance, observe for early signs of decompensation, and intervene as appropriate.

# **Programs Targeting Environmental Health**

## V. COMMUNITY WATER FLUORIDATION

Currently, 54.9% of the population served by public water systems are serviced by optimally fluoridated water systems. Renewed effort has been undertaken toward reaching the Centers for Disease Control Healthy People 2000 goal of optimally fluoridating 75% of the population's water supply.

Community water fluoridation efforts have been re-established with recent legislation, ensuring a stable Office of Public Health <u>Fluoridation Program</u>. The program will oversee monitoring and evaluation of current systems, provide training and assist in promotional activities, together with the Oral Health and Environmental Health Programs of the Office of Public Health and the newly established Fluoridation Advisory Board. This board will function to secure additional resources needed to implement fluoridation systems created as a result of promotional activities.

Thus far, the parish of Plaquemines and the town of Amite, Louisiana have recently passed council ordinances to implement community water fluoridation with the potential to reach an additional 31,000 Louisiana residents.

## W. Environmental Health Advisories

The Louisiana Department of Health and Hospitals Section of Environmental Epidemiology and Toxicology (SEET) issues fish consumption advisories in consultation with state environmental agencies when chemicals or heavy metals in sport fish reach levels that could potentially harm the public. Methyl mercury, a metal compound sometimes found in fish, can cause birth defects and neurological problems when present at high levels.

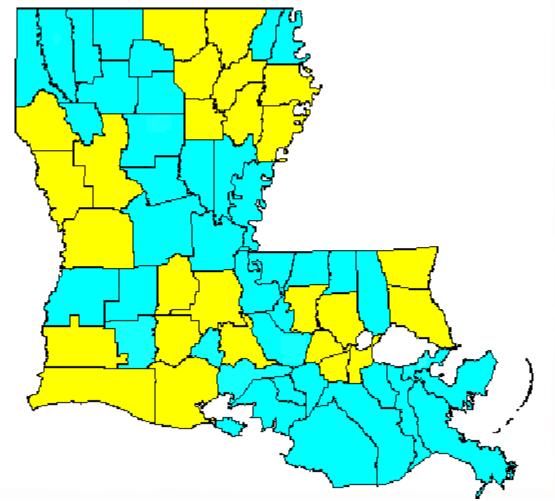


# **Mercury in Fish**

SEET works with the LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ) to assess the extent of mercury contamination in fish. LDEQ collects and samples fish from water bodies that are selected based on their pH, usage, and SEET recommendations. SEET's Health Advisor then coordinates a risk analysis, and, if warranted, the State Health Officer issues a fish consumption advisory for specific species of fish. Of over 100 water bodies tested to date, fourteen health advisories for fish containing mercury have been issued. These advisories cover 12 freshwater water bodies in or traversing 15 parishes (see map on following page). An advisory on king mackerel in the Gulf of Mexico also exists.

# Parishes with Mercury-Related Fish Advisories in Louisiana

The <u>light</u> portions of the following map represent parishes in Louisiana with advisories.



Source: Section of Environmental Epidemiology and Toxicology



# X. ENVIRONMENTAL HEALTH EDUCATION

#### **Methyl Parathion and Other Pesticides**

In the fall of 1998, the Section of Environmental Epidemiology and Toxicology began developing a plan for a statewide public health education project on Methyl Parathion and other pesticides in order to educate people in Louisiana about safe pest prevention control and on the safe use of pesticides.

The plan involves compiling available health education material on pesticides and revising material to make brief and easy to read fact sheets; developing pesticide education resource manuals and distributing the manuals to each parish health unit across the state of Louisiana. The manuals will include easy to read, reproducible health information (fact sheets) that staff at local parish health units can photocopy and use to educate people in their parish. It will also contain information about what to do if someone is exposed to pesticides (for the public), pesticide emergency response (for OPH staff), including reporting procedures and forms.

# **Mercury in Fish**

SEET, Environmental Quality, Wildlife and Fisheries, and Agriculture and Forestry entered into an interagency agreement in 1997 to determine jointly which water bodies in the state needed health advisories based on levels of environmental contamination.

Also, that same year, the Louisiana legislature provided funding to assess mercury levels in recreationally caught fish and to offer free blood screening services in parishes where high levels of mercury had been identified.

The agencies, working with representatives of the Sierra Club and the Audubon Society, produced two informative brochures, one for the general public and the other directed specifically toward pregnant women and mothers of small children. The publications were widely distributed throughout Louisiana including OB/GYN and pediatricians' offices and parish health units.

The environmental organizations continue to work closely with the legislature and the state departments to inform the public about the potentially deleterious effects of mercury and other contaminants on people's health.

#### **Health Professional Education**

SEET conducts <u>Health Professional Education</u> as part of its educational activities. SEET targets physicians and other health professionals near Superfund and proposed-Superfund sites to receive case studies from the Agency for Toxic Substances and Disease Registry (ATSDR). Information provided focuses on site contaminants, health effects from exposure, and clinical descriptions of the diagnosis and management of cases of chemical exposure.

Since 1996, SEET has disseminated ATSDR Case Studies to over 4,000 Louisiana physicians in 20 parishes. The most recent mailing occurred in February of 1998 when SEET distributed ATSDR Case Studies entitled "Mercury Toxicity" and "Taking Exposure History" to 750 physicians in ten parishes.

#### **Public Health Response for Chemical Spills**

SEET sees the need for a public health-specific emergency response to chemical spills. SEET will work with physicians and other health professionals across the state of Louisiana to develop a system that more rapidly and accurately responds to individuals who are exposed to toxic chemicals in their environment.



# V. LOUISIANA STATE HEALTH CARE SYSTEM

# A. Analysis of Health Care in Louisiana

A 1998 national report by ReliaStar Financial, formerly Northwestern National Life, shows Louisiana near the bottom of the list of healthiest states. Louisiana tied with Arkansas for 48th this year, similar to its ranking at 49th last year. The report is based on 17 criteria, including disease rate, access to health care, occupational safety and disability, crime rate, motor vehicle death rate, and other mortality rates and data from 1997. Louisiana's ranking as one of the most unhealthy states stems from its high violent crime rate, high unemployment, poor access to primary care, high number of limited activity days, high rate of heart disease, high total mortality and high premature death. Louisiana ranks in the bottom 10 on 10 of the 17 measures. Support for public health care has risen from 35 to 12 percent below the national average, but still lags behind other states. According to the report, since 1990 Louisiana has failed to match improvements seen in in other states in prevalence of smoking, and has seen an increased risk of heart disease.

A major explanation for Louisiana's poor health status is the lack of access to routine and preventive health care. In *Health Care State Rankings 1998*<sup>1</sup>, Louisiana ranked 49th, second worst in the nation in health indicators. According to this report, Louisiana ranked first in the nation in death rate by diabetes (34.4 deaths per 100,000) and percent of births by cesarean section (27.2% of live births). Louisiana's performance related to prenatal care is dismal, with Louisiana being second in the percentage of low birth weight babies (9.8% of live births), having the second highest neonatal death rate(6.5 neonatal deaths per 1,000 live births) and fourth in infant mortality rates (9.1 infant deaths per 1,000 live births). Louisiana ranks 16th for women receiving late or no prenatal care and 29th for African-American women receiving prenatal care in the first trimester. Similarly, Louisiana's breast cancer and cervical cancer rates for African-American women exceed the national rates. The rate for white women is generally below the national norm.

It should be noted that Louisiana's high rate of poverty (second highest in the nation at 22%) is also a contributing factor to poor health outcomes, despite increased public health expenditures. Public health expenditures are higher due to Louisiana's fifth place in rates of uninsured individuals (20.9% uninsured) and the concomitant dependence of these uninsured individuals on the public health system, which includes a statewide charity hospital system that is unique in the nation.

Accessibility and availability of primary care practitioners (family practice, general practice, internal medicine, pediatrics, and obstetrics/gynecology) also pose a significant problem in the delivery of health care in the state. *Health Care State Rankings 1998*<sup>1</sup> ranks Louisiana first in the nation for lack of access to primary care. As of January 1999, the Bureau of Health Care Delivery and Assistance recognizes 76 primary care shortage areas in the state: 29 geographic areas, 20 population groups, 19 sub-areas, and 8 facilities. Of the 29 whole-parish designations, 27 are non-metropolitan parishes.

In lieu of a primary care physician, many people seek care at hospital emergency rooms. In 1996 Louisiana ranked 15th highest nationally in the number of emergency outpatient visits to community hospitals. There were 2,192,338 emergency outpatient visits to hospitals in Louisiana, as compared with the national average of 1,862,232 visits.

<sup>&</sup>lt;sup>1</sup>Morgan, K.O. and Morgan, S. (Eds.) 1998. *Health Care State Rankings 1998: Health Care in the 50 United States.* (6th Ed.) Lawrence, KS: Morgan Quitno Press.



In addition to confirming the shortage among physicians and nurses, other occupations identified as posing a general supply problem in the state include dentists (in *Health Care State Ranking 1998*, American Dental Association statistics report 44 dentists per 100,000 population in Louisiana in 1997 - lower than the national rate of 60), hygienists, physician assistants, pharmacists, nutritionists, audiologists, social workers, public health personnel, physical therapists, and medical technologists.

Louisiana has attempted to address the problems associated with health professional shortages over the years in many ways. State schools of medicine, nursing schools, and schools of allied health professions have been mandated to cooperate, in collaboration with the <a href="Louisiana Area">Louisiana Area</a> Health Education Centers, to improve and expand programs for non-metropolitan and other health professional shortage areas. Hundreds of thousands of dollars of state funds have in the past been allocated to capture federal dollars for professional development initiatives, including scholarship programs for students who will return to health professional shortage areas, and loan repayment programs for medical professionals to practice in shortage areas in exchange for payment of professional education loans. However, during FY 97/98 only continuation funding has been appropriated to continue the contracts with the health care providers through the <a href="State Loan Repayment Program (SLRP)">State Loan Repayment Program (SLRP)</a>. The SLRP is a program that provides federal dollars to match the state investment in recruitment and retention of health care providers to serve underserved people.

Louisiana **must continue** aggressively to attack the health professional shortage problem to meet the existing health needs of its residents. Lack of access to appropriate care in their communities is resulting in many ill persons having to become patients at state hospitals. However, these same individuals could best be served if there were more outpatient primary care facilities available and accessible in their own areas. Ensuring appropriate and adequate primary care facilities can take place only if there are available physicians, nurses, and other health care professional to staff the facilities, and state financing to support these providers.

# B. LOUISIANA HEALTH CARE STATISTICS 2

Percent of Population Represented by Medicaid Recipients in 1996 (3)							
Alabama	12.74	%					
Arkansas	14.47	%					
Louisiana	17.92%						
Mississippi	18.80	%					
Texas	13.47	%					
US	13.62	%					
Percent of Population Lacking Access to Primary C	are in 1996						
Alabama	16.60	%					
Arkansas	12.50	%					
Louisiana	24.50	%					
Mississippi	23.20	%					
Texas	10.90	%					
US	10.10	%					
Percent of Population Not Covered by Health Insura							
Alabama	12.90						
Arkansas	21.70	%					
Louisiana	20.90						
Mississippi	18.50%						
Texas	24.30%						
US	15.60%						
Number (Percent of Population) of Emergency Outpatient Visit		1996					
Alabama	2,057,139	(48.0%)*					
Arkansas	1,023,926	(42.9%)					
Louisiana	2,192,338	(50.5%)					
Mississippi	1,397,406	(51.6%)					
Texas	6,163,727	(32.3%)					
US	93,111,592	(35.1%)					
Percent of Population Enrolled in Medicare -							
Alabama	15.29						
Arkansas	17.01						
Louisiana	13.57						
Mississippi	14.88						
Texas	11.08						
US	14.33						
Number of Health Maintenance Organizations (HMOs), LA 1995/1997 (4)	14/2						
Percent of Population Enrolled in HMOs, Louisiana 1997	14.70						
Number of Preferred Provider Organizations (PPOs), Louisiana 1994/1995	30/26						
Percent of Population Enrolled in a PPO, Louisiana 1993/1994	15.5%/44.2%						
Number of Nurses, Louisiana 1997 (5)	39,354						
Number of Nurse Practitioners, Louisiana 1997 (6)	465						

<sup>(2)</sup> Morgan, K.O. Morgan, S. and Uhlig, M. (Eds.). 1998. Health Care State Rankings 1998: Health Care in the 50 United States. (5th Ed.) Lawrence, KS: Morgan Quitno Press.

<sup>(3)</sup> U.S. Department of Health and Human Services, Health Care Financing Administration.

<sup>\*</sup>Percent of 1996 population represented by the number of Emergency Outpatients Visits. State Center for Health Statistics.

<sup>(4)</sup> Health Resources Management, Office of Public Health.

<sup>(5,6)</sup> Louisiana Board of Nursing



# C. LOUISIANA HEALTH CARE ACCESS

Number of Hospitals and Beds Louisiana, 1997							
Type of Hospital	Hospitals	Beds					
General	125	18,658					
Long-Term	18	1,735					
Rehabilitative	11	489					
Acute Chemical Dependency Unit	1	40					
Psychiatric	23	2,530					
Chemical Dependency Unit	4	272					

Source: Health Resource Management, Office of Public Health

Health Facilities Louisiana, 1997	
Type of Facility	Number
Alcohol/Drug Abuse Clinics	179
Community Health Clinics	22
Developmental Disability Clinics	19
Hospitals	182
Mental Health Clinics	89
Rural Health Clinics	69
Public Health Clinics	108

Source: Health Resource Management, Office of Public Health

Nursing Home Statistics Louisiana, 1997						
Number of Nursing Homes	303					
Number of Beds						
Licensed Beds	40,367					
Medicaid Enrollment Beds	36,870					
Average Occupancy	82.90%					

Source: Louisiana Board of Nursing

Lack of Access to Primary Care* Louisiana, Neighboring States, and United States, 1996								
State Percent Rank**								
Alabama	16.6	5						
Arkansas	12.5	15						
Louisiana	24.5	1						
Mississippi	23.2	2						
Texas	10.9	22						
United States	10.1	-						

<sup>\*</sup>Lack of Access to Primary Care measures the percent of population areas where the population is underserved by primary care practitioners residing in designated Health Manpower Shortage Areas.

Source: Morgan, K.O. and Morgan, S. (Eds.). 1998. *Health Care State Rankings 1998: Health Care in the 50 United States*. (6th Ed.) Lawrence, KS: Morgan Quitno Press.

<sup>\*\*</sup>Rank reflects worst (lowest) to best (highest)



#### D. MEDICAID

Medicaid, or Title XIX of the Social Security Act, became law in 1965 as a jointly funded cooperative venture between the federal and state governments. Its purpose was to assist States in the provision of adequate medical care to eligible individuals and families with low incomes and resources. Within broad, federally provided national guidelines, Louisiana has autonomy in establishing its own eligibility standards; determining the type, amount, duration, and scope of services; setting the rate of payment for services; and administering its own program.

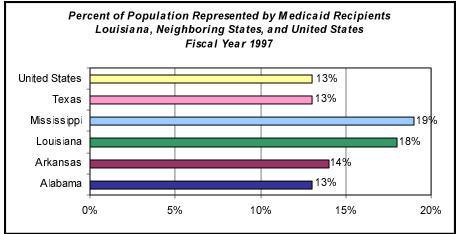
As the largest provider of medical and health-related services to America's poorest people, Medicaid includes funding for these basic health-care programs: inpatient and outpatient hospital services; laboratory and X-ray services; skilled nursing and home health services; doctors' services; family planning; and periodic health checkups, diagnosis, and treatment for children.

Medicaid recipients fall into several categories of eligibility: the aged, blind and disabled people on Supplemental Security Income, certain low-income pregnant women and children, and people who have very high medical bills. In fiscal year 1997, over 746,000 Louisianians benefited from services provided through Medicaid funding.

Number and Percent of Medicaid Recipients by Basis of Eligibility Louisiana, Neighboring States, and United States, Fiscal Year 1997									
			Percent	t of Total Red	ipients				
	Total Number	Age 65	Blind/			Other/			
State	of Recipients	and Older	Disabled	Children	Adults	Unknown			
Alabama	546,152	12.1	26.5	50.6	9.7	1.1			
Arkansas	370,386	13.9	25.1	26.5	32.5	2.0			
Louisiana	746,461	13.6	20.2	54.9	10.5	0.9			
Mississippi	504,017	12.4	25.9	38.0	21.8	0.0			
Texas	2,538,655	12.4	11.4	57.9	18.0	0.3			
United States	33,578,980	11.8	18.3	45.5	20.2	4.3			

Source: U.S. Department of Health and Human Services, Health Care Financing Administration, HCFA-2082 Report for FY 1997

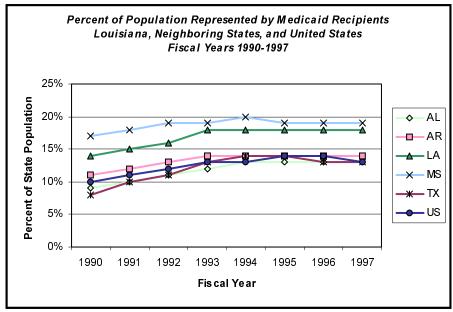
The total number of Medicaid recipients in Louisiana in fiscal year 1997 is the equivalent of 18% of the state's population, a figure approximately 5% higher than that seen in most other south-central states and in the nation as a whole.



Source: U.S. Department of Health and Human Services, Health Care Financing Administration, HCFA-2082 Report for 1997



The percentage of Louisiana's population represented by Medicaid beneficiaries has been unchanged since 1993. Among the south-central states, only Mississippi has had a higher percentage of its population represented by Medicaid beneficiaries.



Source: U.S. Department of Health and Human Services, Health Care Financing Administration, HCFA-2082 Report for FY 1997

Of Louisiana Medicaid medical care recipients in Fiscal Year 1997, 61.2% were female and 38.7% were male. These figures are similar to those seen in other south-central states. For the United States as a whole, 59.4% of recipients were female and 37.5% were male.

Number and Percent of Medicaid Recipients of Medical Care by Gender Louisiana, Neighboring States, and United States, Fiscal Year 1997								
	Male	е	Fei	male				
State	Number	Percent*	Number	Percent*				
Alabama	202,230	37.0	336,467	61.6				
Arkansas	139,784	37.7	229,053	61.8				
Louisiana	289,084	38.7	457,056	61.2				
Mississippi	182,314	36.2	319,225	63.3				
Texas	983,650	38.7	1,554,996	61.3				
United States	12,585,799	37.5	19,954,454	59.4				

<sup>\*</sup>Percent of all Medicaid recipients in the state. Unknown gender not included in table.

Source: U.S. Department of Health and Human Services, Health Care Financing Administration, HCFA-2082 Report for FY 1997.

Like Alabama and Mississippi, the majority of Medicaid beneficiaries who received medical care in Louisiana were African-American (59.8%). In Louisiana, 33.5% were white and 6.7% were of Other race/ethnic groups. The race/ethnic group differences seen among the south-central states, and between Louisiana and the nation as a whole, reflect state-level differences in race/ethnic populations.

Number and Percent of Medicaid Recipients of Medical Care by Race Louisiana, Neighboring States, and United States, Fiscal Year 1997										
	Wh	ite*	Bla	ck*	Oth	er**				
State	Number	Percent***	Number	Percent***	Number	Percent***				
Alabama	242,516	44.4	275,231	50.4	28,405	5.2				
Arkansas	221,553	59.8	126,060	34.0	22,773	6.1				
Louisiana	250,193	33.5	446,611	59.8	49,657	6.7				
Mississippi	157,375	31.2	314,143	62.3	32,499	6.4				
Texas	713,214	28.1	503,281	19.8	1,322,160	52.1				
United States	15,482,887	46.1	8,206,910	24.4	9,889,119	29.5				

<sup>\*</sup>Non-Hispanic

Source: U.S. Department of Health and Human Services, Health Care Financing Administration, HCFA-2082 Report for FY 1997

The two tables below present the number and percent of total Medicaid medical care recipients divided into age groups. Over fifty percent of Medicaid medical care recipients in fiscal year 1997 were below 15 years of age, reflecting the importance placed on provision of health services to children. The age-group distribution of services in Louisiana was similar to that seen in surrounding states and in the nation as a whole.

	Number of Medicaid Recipients of Medical Care by Age Group Louisiana, Neighboring States, and United States, Fiscal Year 1997									
					Age C	Group				
State	Under 1	1 - 5	6 - 14	15 - 20	21 - 44	45 - 64	65 - 74	75 - 84	85+	Unknown
Alabama	28,267	123,033	112,199	42,273	99,867	50,685	32,408	31,144	25,208	1,068
Arkansas	15,656	72,343	75,862	33,963	73,727	32,938	21,693	23,318	19,420	1,466
Louisiana	58,310	155,503	162,340	66,876	144,144	59,878	37,822	35,139	26,308	141
Mississippi	25,777	98,914	98,407	45,495	102,213	46,746	31,324	29,911	22,754	2,476
Texas	253,689	582,420	569,632	195,399	470,231	152,308	129,296	106,242	79,438	-
U.S.	1,652,312	5,970,685	6,730,558	3,055,641	7,649,478	2,931,437	1,740,439	1,560,181	1,271,034	1,017,151

Source: U.S. Department of Health and Human Services, Health Care Financing Administration, HCFA-2082 Report for FY 1997

Percent* of Medicaid Recipients of Medical Care by Age Group Louisiana, Neighboring States, and United States, Fiscal Year 1997										
					Age	Group				
State	Under 1	1 - 5	6 - 14	15 - 20	21 - 44	45 - 64	65 - 74	75 - 84	85+	Unknown
Alabama	5.2	22.5	20.5	7.7	18.3	9.3	5.9	5.7	4.6	0.2
Arkansas	4.2	19.5	20.5	9.2	19.9	8.9	5.9	6.3	5.2	0.4
Louisiana	7.8	20.8	21.7	9.0	19.3	8.0	5.1	4.7	3.5	0.0
Mississippi	5.1	19.6	19.5	9.0	20.3	9.3	6.2	5.9	4.5	0.5
Texas	10.0	22.9	22.4	7.7	18.5	6.0	5.1	4.2	3.1	-
United States	4.9	17.8	20.0	9.1	22.8	8.7	5.2	4.6	3.8	3.0

<sup>\*</sup>Percent of all Medicaid recipients in the state

Source: U.S. Department of Health and Human Services, Health Care Financing Administration, HCFA-2082 Report for FY 1997

<sup>\*\*</sup>Other includes Native American, Asian or Pacific Islander, Hispanic, and Unknown

<sup>\*\*\*</sup>Percent of all Medicaid recipients in the state

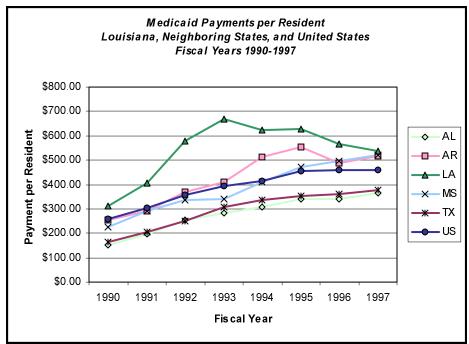


The total of payments made to Medicaid vendors for eligible recipients in Louisiana in fiscal year 1997 was over \$2.3 billion. More than seventy-two percent of Medicaid funding went to persons who were disabled or were age 65 or over, even though half of all eligible recipients are children.

Medicaid Vendor Payments by Basis of Eligibility of Recipient Louisiana and Neighboring States, Fiscal Year 1997									
	Total Age 65 Blind/								
State	Payment	and Older	Disabled	Children	Adults	Other			
Alabama	\$1,571,203,728	548,910,910	592,039,034	191,018,520	76,474,024	162,761,240			
Arkansas	\$1,301,593,755	411,703,399	634,129,978	132,652,261	151,649,485	28,541,368			
Louisiana	\$2,336,007,497	639,954,860	1,056,601,823	496,257,971	134,136,473	9,056,369			
Mississippi	\$1,424,219,167	404,813,812	632,848,889	228,602,554	148,821,589	9,132,323			
Texas	\$7,345,173,561	2,211,459,449	2,442,379,145	1,640,636,182	1,023,229,430	27,469,355			

Source: U.S. Department of Health and Human Services, Health Care Financing Administration, HCFA-2082 Report for FY 1997

In fiscal year 1997, Medicaid funding per state resident was higher in Louisiana than in any of the other south-central states. Medicaid payments averaged \$537.00 per state resident, approximately 16% higher than the national average of \$461.00 per United States resident. This figure has declined, however, from its 1993 peak of \$670.00 per state resident.



Source: U.S. Department of Health and Human Services, Health Care Financing Administration, HCFA-2082 Report for FY 1997



As part of the cost-saving measures available through the Medicaid program, states are making increased use of enrollment of Medicaid beneficiaries in managed care programs. The following table shows the number of enrollees in Medicaid managed care programs from 1995 to 1997. These numbers include individuals enrolled in state health care reform programs that expand eligibility beyond traditional Medicaid eligibility standards.

Number of Medicaid Managed Care Enrollees							
Louisiana, Neighboring States, and United States, 1995-1997							
	1995		19	96	1997		
	Number of	Percent in	Number of Percent in		Number of	Percent in	
State	Enrollees	Managed Care	Enrollees	Managed Care	Enrollees	Managed Care	
Alabama	39,543	7.3%	56,929	11.4%	407,643	82.0%	
Arkansas	137,070	38.8%	143,232	38.6%	159,458	80.9%	
Louisiana	45,181	5.8%	44,772	5.6%	40,469	6.4%	
Mississippi	30,947	6.0%	35,137	6.9%	81,255	15.0%	
Texas	63,156	2.5%	75,776	3.8%	275,951	13.3%	
United States	11,619,929	32.0%	13,330,119	40.1%	15,345,502	47.8%	

Source: U.S. Department of Health and Human Services, Health Care Financing Administration, HCFA-2082 Report for FY 1997



#### E. MEDICARE

Medicare is the nation's largest health insurance program, covering over 38 million Americans at a cost of just under \$200 billion. Medicare provides health insurance to people who are at least 65 years old, the disabled, and those with permanent kidney failure. People who receive Social Security or Railroad Retirement benefits are automatically enrolled when they become eligible for Medicare. Others must apply at their local Social Security office.

Medicare has two parts: Hospital Insurance (Part A) and Medical Insurance (Part B). Medicare Part A helps pay for inpatient hospital services, skilled nursing facility services, home health services, and hospice care. Medicare Part B helps pay for doctor services, outpatient hospital services, medical equipment and supplies, and other health services and supplies.

Many Medicare beneficiaries choose to enroll in managed care plans like Health Maintenance Organizations. They can get both Part A and Part B benefits in most managed care plans.

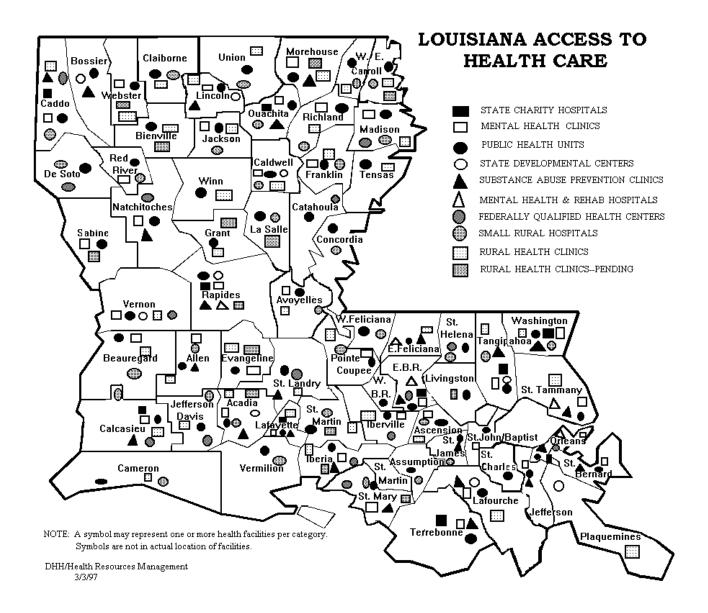
As of March 1, 1998, Louisianans enrolled in the Medicare program numbered 592,543. This number constitutes 14% of the state's population, a percentage similar to that of surrounding states and the nation as a whole.

Percent of State Population Enrolled in Medicare Louisiana, Neighboring States, and United States, 1997				
State	Percent Enrolled			
Alabama	15.3			
Arkansas	17			
Louisiana	13.6			
Mississippi	14.9			
Texas	11.2			
United States	14.4			

Source: U.S. Department of Health and Human Services, Health Care Financing Administration, HCFA-2082 Report for 1997

#### F. Provider Sites

The following pages describe the various health care facilities available to the public throughout the state of Louisiana. As the map below displays, these facilities include the state Charity hospital system, small rural and community hospitals, public health clinics, rural health clinics, Federally Qualified Health Centers (FQHCs), developmental centers, mental health clinics, mental health and rehabilitation hospitals, and substance abuse prevention clinics. Other programs such as School-Based Health Centers, Community Care, and Health Maintenance Organizations (HMOs) are discussed.





#### **State Charity Hospitals**

The Louisiana Charity Hospital system currently is being operated by the Louisiana State University Medical Center. The first Charity Hospital (in New Orleans) was built in 1736. The system was expanded across the state during the administration of Governor Huey Long. Two new medical centers were added in 1978 and 1993, and two were rebuilt in the late 1970s.

Today there are ten hospitals (see map on following page), with more than 2,000 beds in the Charity system, treating more than a million patients a year. Annually, these hospitals have nearly 97,000 admissions, 12,475 births, and more than 1,300,000 outpatient visits. The occupancy rate for the system is close to 80%.

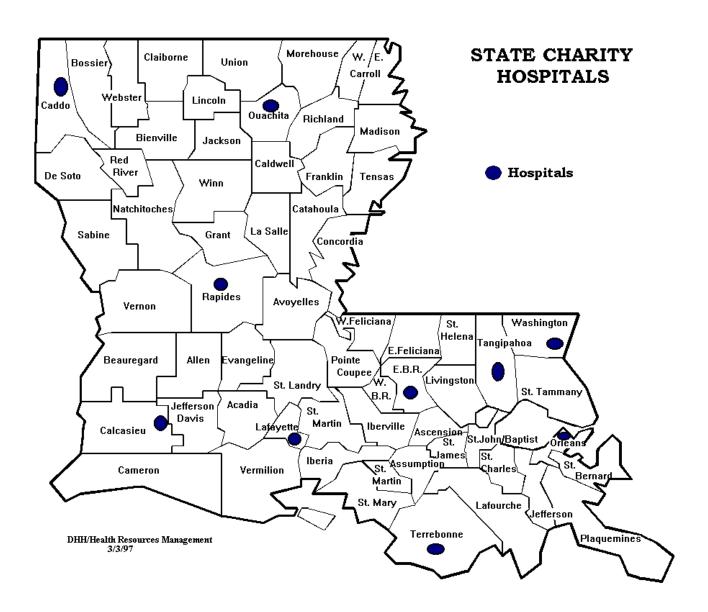
Most of the Charity Hospitals are teaching hospitals used to train medical school, graduate, and postgraduate students from the Louisiana State University (LSU) Schools of Medicine and Nursing, as well as other professional educational institutions.

## **Small Rural and Community Hospitals**

Louisiana has a number of very small rural and community hospitals, some publicly and some privately owned. Eight of the state's sixty-four parishes do not have a hospital. As part of the move toward managed care, some of the small rural hospitals and the Charity Hospitals have begun to formalize their long-standing links with the primary care clinics in their regions.

In its <u>Rural Health Care Initiative</u>, the state has appropriated money to support small rural hospitals suffering financial distress. This support has taken the form of grants provided to 34 small rural hospitals (less than 60 beds) for a variety of projects. For example, last year the state awarded grants to a number of these hospitals for the purchase of updated emergency room equipment and physician coverage for the emergency room. Without such support, some of these hospitals would have had to close their emergency rooms.



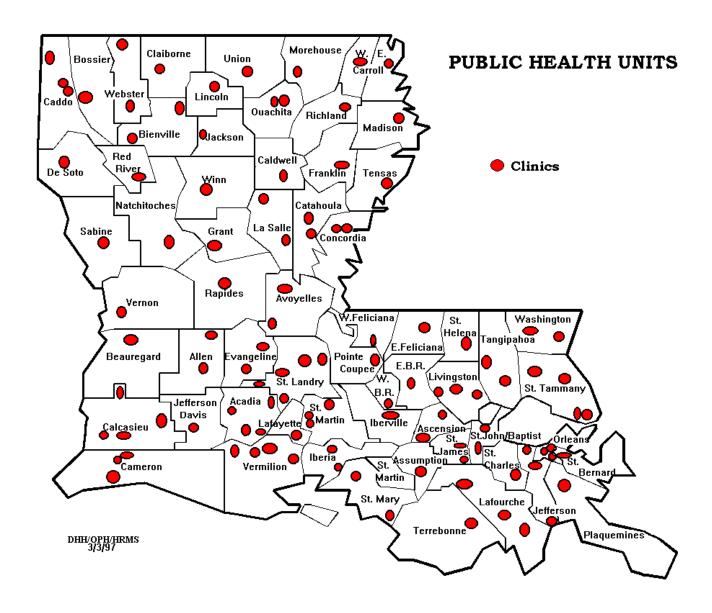




#### **Public Health Clinics**

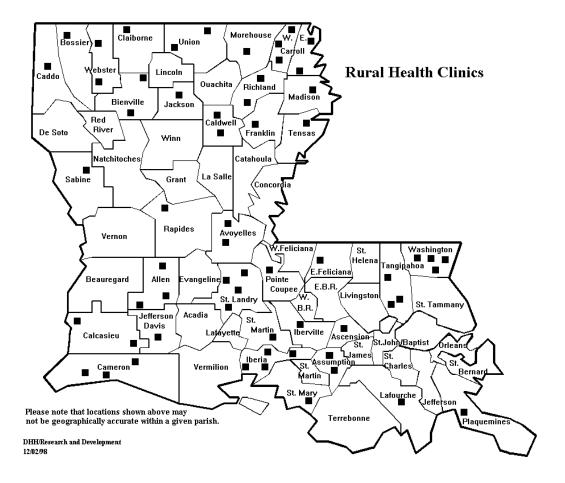
LOUISIANA'S DEPARTMENT OF HEALTH AND HOSPITALS, OFFICE OF PUBLIC HEALTH, currently operates 108 parish health units (see map below). These units provide services in the following areas: immunization, family planning, prenatal care, newborn screening for genetic disorders, well-baby care, nutrition therapy, individual nutrition counseling, genetic evaluation and counseling, early intervention services for individuals infected with HIV, health education, and testing and monitoring of infectious diseases (e.g., tuberculosis, sexually transmitted diseases/HIV/AIDS).

There are nine <u>Children's Special Health Services Clinics</u>, one <u>Family Planning Clinic</u>, five <u>Sexually Transmitted Disease Clinics</u>, and one <u>Tuberculosis Clinic</u>. In addition, sanitarians working out of the public health units perform inspections and monitoring of the environment as it relates to health risks.



#### **Rural Health Clinics**

Louisiana has 86 federally designated rural health clinics, and approximately ten applications currently are pending (see map below). These are clinics operating in a rural area designated as "medically underserved" or as a "Health Professional Shortage Area (HPSA)." Rural health clinics must be staffed by one or more physicians <u>and</u> one or more mid-level practitioners, such as physician assistants, nurse practitioners, or certified nurse midwives. Clinics must provide routine diagnostic services, maintain medical supplies, dispense drugs, and have arrangements with local hospitals and other providers for services not available at the clinic.





# **Community Care**

Community Care is a system of comprehensive health care based on primary care case management (PCCM). Operating in twenty parishes (see map on following page) under a Medicaid 1915(b) waiver from the federal government, the program is designed to meet the needs of the rural population. It is a freedom of choice waiver program that must demonstrate cost effectiveness. The program links Medicaid recipients in designated parishes with a physician, clinic, Federally Qualified Health Center (FQHC), or rural health clinic that serves as the primary care physician (PCP).

The PCP may be a family practice doctor, internist, pediatrician, rural health clinic, or federally qualified health center. The PCP has total responsibility for managing all facets of the recipient's health care, including education, prevention, maintenance, and acute care. Referral for specialty services is an integral component of <u>Community Care</u>.

The program is operational in twenty rural parishes in Louisiana, with a total of 40,685 enrolled recipients. There are 143 enrolled providers, some of which consist of more than one physician. PCPs are paid a primary care management fee of \$3.00 each month for each <u>Community Care</u> recipient for whom they manage care, in addition to the normal fee-for-service reimbursement from Medicaid for services rendered. Without prior authorization or post-emergency authorization from the PCP, Medicaid will not reimburse for services beyond the PCP.

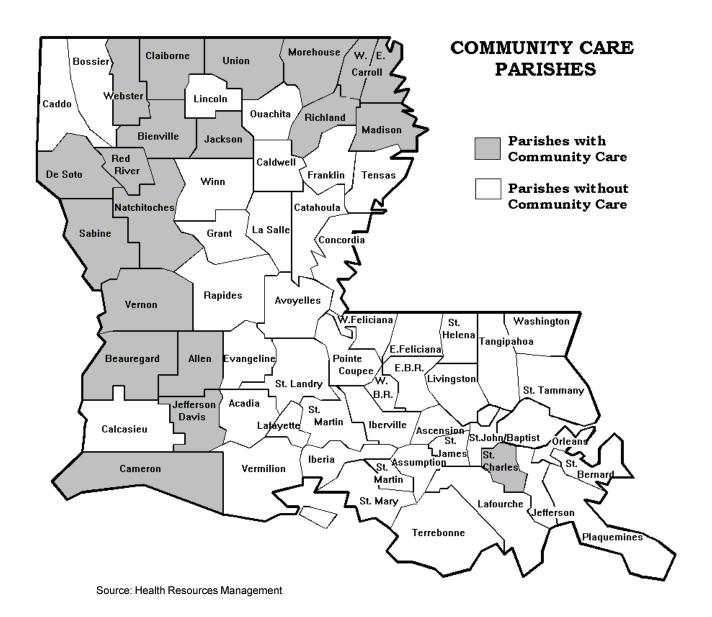
## Federally Qualified Health Centers (FQHC)

Louisiana has twelve grantees for community health centers delivering service to twenty-two sites that are federally-supported through grants from the U.S. Public Health Service.

An FQHC (also known as a <u>Community Health Center</u>) is a freestanding health clinic that provides comprehensive preventive and primary care services. In addition to primary care physicians and support staff, FQHC staff may include advanced nurse practitioners, physician assistants, and dentists. Centers may also have social workers or counselors, and there is a growing trend to include psychologists and other mental health and substance abuse services. Services most commonly provided at these centers include preventive health services, well-child services, acute care, perinatal care, family planning, diagnostic laboratory and radiological services, emergency medical services, transportation services, preventive and restorative dental services, and pharmaceutical services.

Several of the FQHCs have formed innovative clinic-based health care networks of both publicly and privately owned entities. The clinic itself offers comprehensive primary care services through private physicians and other providers on a contractual basis. The FQHC shares staff with the Office of Public Health's parish health units and receives referrals from them. The staff at the clinics have formal admitting privileges with private hospitals in the network and informal admitting privileges at some of the Charity Hospitals in their respective areas. The FQHCs also refer patients to the hospital for sub-specialty clinic or inpatient services.

Major health professional education institutions have formal relationships with some of the FQHCs. The relationship involves staffing residents and interns at the clinic for training purposes. Clinic training also is provided to students of a local nursing school and LPN school and to high school students to encourage them to enter health care professions.

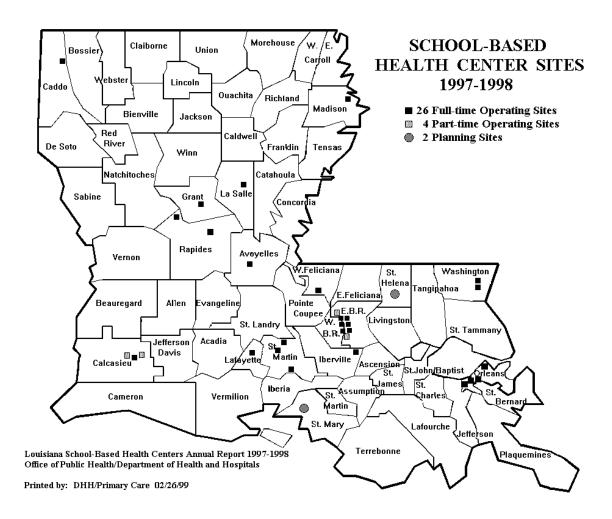




#### **School-Based Health Centers**

In response to the Adolescent School Health Initiative authorized by the Louisiana State Legislature in 1991, the Department of Health and Hospitals, Office of Public Health has funded and provides technical assistance to localities for the establishment and operation of full-service health centers in middle and secondary schools (see map on following page). Currently there are 26 full time sites, 4 part time sites, and 2 planning sites. These programs are operated at the local level by a health or education sponsoring agency under contract with the Office of Public Health. The state will continue to pay these centers a portion of their cost.

The centers primarily serve low-income adolescents in rural and medically underserved urban areas. The centers offer primary and preventive physical and mental health care, including health education and counseling services. Each center is staffed at a minimum by a part-time physician, a full-time nurse practitioner or registered nurse with adolescent experience, and a master's level mental health counselor. These centers have been immensely popular with the high-risk adolescent population.



#### Tallulah (Madison Parish)

Reuben McCall High

#### **Shreveport (Caddo Parish)**

Linwood Middle

#### **Dry Prong (Grant Parish)**

Dry Prong Middle

#### Jena (La Salle Parish)

Jena Jr. High

#### Lena (Rapides Parish)

Northwood K-12

# Mansura (Avoyelles Parish)

Mansura Middle

# **Bogalusa (Washington Parish)**

Bogalusa High Bogalusa Jr. High

#### **Baton Rouge (E Baton Rouge Parish)**

Istrouma High
Glen Oaks Middle
Prescott Middle
Westdale Middle
Capitol High
Northeast High & Elementary

# Glen Oaks High

#### St. Martin Parish

Cecilia Schools PreK-12 Breaux Bridge Schools PreK-12 St. Martinville Schools PreK-12

#### Lafayette (Lafayette Parish)

Northside High School

#### St. Francisville (W Feliciana Parish)

Family Service Center

#### St. Gabriel (Iberville Parish)

E. Iberville K-12

#### **New Orleans (Orleans Parish)**

Lawless Jr. & Sr. Carver Jr. & Sr. B.T. Washington John McDonogh Sr.

#### Lake Charles (Calcasieu Parish)

Washington-Marion Magnet High Molo Middle Clifton Elementary

## **Planning Sites**

#### Greensburg (St. Helena Parish)

Central Middle and High

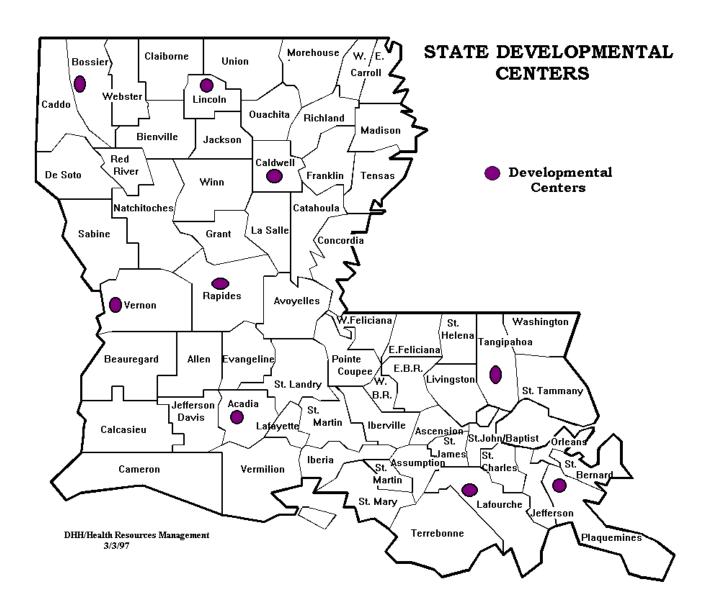
#### Franklin (St. Mary Parish)

Unnamed Site



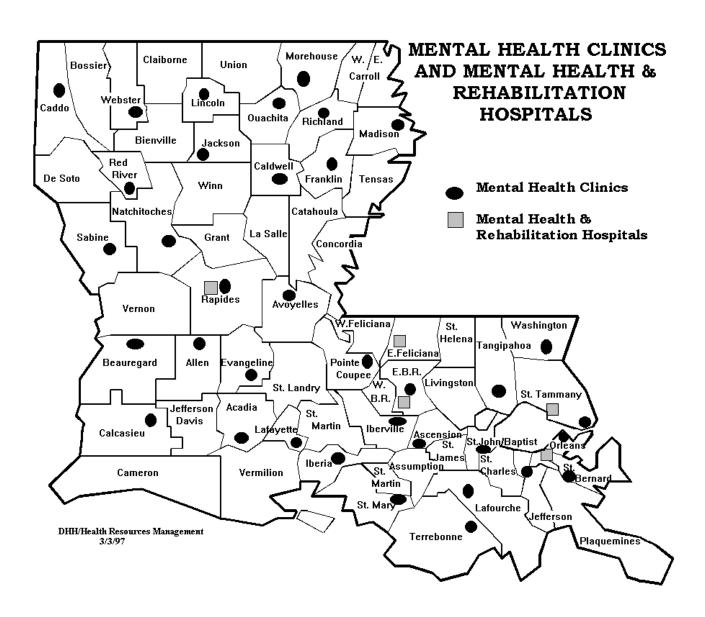
## **Developmental Centers**

Services and supports for individuals with mental retardation and developmental disabilities are provided by private provider agencies through contractual agreements, as well as through Louisiana's nine Developmental Centers which provide 24-hour care and active treatment (see map below). The broad range of services provided includes case management, diagnosis and evaluation, early intervention/infant habilitation, respite, family support, vocational and habilitative services, and residential services (community homes, supervised apartments, supportive living).



#### **Mental Health Clinics**

Louisiana's Department of Health and Hospitals, Office of Mental Health, either directly or through partnerships with private and university resources, provides an array of community-based and hospital-based services, the range of which is consistent with national models for public mental health care for individuals with serious mental illnesses. Statewide there currently are 43 community mental health centers, 33 outreach sites, seven acute treatment units, five Intermediate/Long-term Care Hospitals and one forensic hospital (see map below). Major service components include crisis response programs, assertive community treatment, family or consumer respite care, traditional clinic-based services, community forensic interventions, hospital-based inpatient intensive and intermediate units, case management, and rehabilitative services.





#### **Substance Abuse Prevention Clinics**

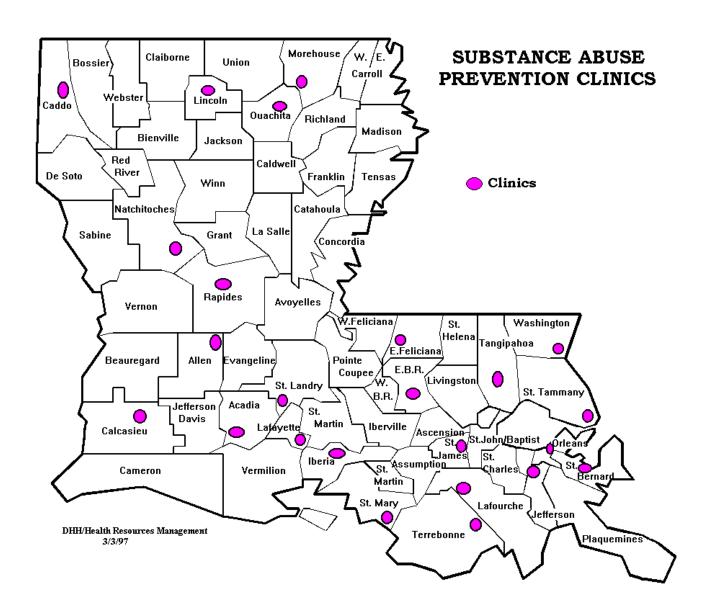
LOUISIANA'S DEPARTMENT OF HEALTH AND HOSPITALS, OFFICE OF ALCOHOL AND DRUG ABUSE, through contracts or through an array of community-based and residential programs, provides services and continuity of care for the prevention, diagnosis, treatment, rehabilitation, and follow-up care of alcohol and other drug abuse diseases (see map on following page). This system is composed of nine treatment delivery regions, 27 outpatient clinics, 23 satellite clinics, four detoxification centers, eight residential facilities, and one pre-release program for adult incarcerated substance abusers.

#### **Existing Health Maintenance Organizations**

Louisiana currently has 26 licensed health maintenance organizations operating in the state. Under state insurance law, an HMO is defined as any plan delivering basic health benefits for a prepaid fee. Most of the state's HMOs are composed of independent physicians practicing alone or in small medical groups. According to *Health Care State Rankings 1998*, as of 1997, approximately 640,530 (15%) Louisianans were enrolled in health maintenance organizations.

In addition to HMOs, the Louisiana Managed Health Care Association lists as members preferred provider organizations (PPOs) and several physician hospital networks (PHOs) operating in the State.







# G. INVENTORY OF PROVIDERS

		lumber of F	Primary Care Louisiana		y Parish		
Family General Infectious Internal Obstetrics &							
Parish	Practice	Practice	Disease	Medicine	Gynecology	Pediatrics	Total
Acadia	13	5	0	6	3	3	30
Allen	5	1	0	4	0	3	13
Ascension	8	4	0	4	0	4	20
Assumption	5	2	0	1	0	0	8
Avoyelles	7	7	0	3	0	0	17
Beauregard	9	0	0	4	3	2	18
Bienville	1	1	0	1	0	0	3
Bossier	22	3	0	36	9	12	82
Caddo	66	8	2	232	56	75	439
Calcasieu	47	8	0	64	28	25	172
Caldwell	1	0	0	0	0	0	1
Cameron	1	1	0	2	0	1	5
Catahoula	8	2	0	0	0	1	11
Claiborne	3	1	0	3	0	0	7
Concordia	4	4	0	4	2	0	14
DeSoto	1	3	0	1	1	0	6
East Baton Rouge	85	52	1	214	82	95	529
East Carroll	2	1	0	1	0	1	5
East Feliciana	5	9	0	0		0	14
Evangeline	4	8	0	8			26
Franklin	3	0	0	1	0	1	5
Grant	2	1	0	0	1	0	4
Iberia	15	10	0	12	7	10	54
Iberville	7	3	0	6		3	21
Jackson	1	0	0	5	0	1	7
Jefferson	55	29	5	382	104	136	711
Jefferson Davis	4	5	0	702	3	130	21
Lafayette	37	21	0	93	40	35	226
Lafourche	2	2	0	3	0	0	7
LaSalle	22	8	0	24	11	4	69
Lincoln	6	3	0	9		4	25
Livingston	7	1	0	1			11
Madison	0	2	0	1	0		4
Morehouse	7	5	0	4			21
Natchitoches	7	3	0	8			26
Orleans	65	32					833
Ouachita	37	17	2 1	426 73		25	170
		2	0	2			6
Plaquemines	1			2		0	
Pointe Coupee	8	3	0			0	14
Rapides	33	5	0	72		28	154
Red River	2	1	0	0			3
Richland	6	2	0	3			12
Sabine	4	2	0	4			11
St. Bernard	5	1	0	5			16
St. Charles	11	3	0	7	6		30
St. Helena	1	3	0	15			25
St. James	4	1	0	4			14
St. John	1	2	0	2	1	0	6

Number of Primary Care Physicians by Parish Louisiana, 1998							
	Family	General	Infectious	Internal	Obstetrics &		
Parish	Practice	Practice	Disease	Medicine	Gynecology	Pediatrics	Total
St. Landry	6	2	0	0	1	1	10
St. Martin	21	9	0	18	10	12	70
St. Mary	3	3	0	1	0	1	8
St. Tammany	33	10	1	107	34	52	237
Tangipahoa	19	6	0	16	9	10	60
Tensas	0	2	0	0	0	0	2
Terrebonne	7	7	0	33	11	15	73
Union	2	3	0	6	0	1	12
Vermilion	2	3	0	11	0	1	17
Vernon	6	6	0	6	3	4	25
Washington	10	6	0	12	3	3	34
Webster	2	0	0	1	0	0	3
West Baton Rouge	1	1	0	4	0	1	7
West Carroll	11	4	0	4	3	2	24
West Feliciana	2	1	0	1	0	0	4
Winn	2	3	0	2	0	1	8
Total	777	353	12	1981	600	797	4520

Source: Louisiana Board of Medical Examiners, January 1999

Selected Mental Health Professionals by Parish Louisiana, 1998				
Parish	Psychiatrists	Social Workers*		
Acadia	1	6		
Allen	0	4		
Ascension	1	9		
Assumption	0	1		
Avoyelles	0	9		
Beauregard	1	3 2		
Bienville	0	2		
Bossier	5	23		
Caddo	44	152		
Calcasieu	13	81		
Caldwell	0	3		
Cameron	1	0		
Catahoula	0	0		
Claiborne	0	1		
Concordia	0	4		
DeSoto	1	4		
East Baton Rouge	47	520		
East Carroll	0	1		
East Feliciana	5	7		
Evangeline	0	3		
Franklin	0	1		
Grant	0	4		
Iberia	1	13		
Iberville	1	8		
Jackson	0	2		
Jefferson	80	326		

<sup>\*</sup>Licensed and residing in Louisiana. Social workers are not required to have a license to work in Louisiana through contract or in private practice.



Selected Mental Health Professionals by Parish		
Parish	Louisiana, 1998 Psychiatrists	Social Workers*
Jefferson Davis	2	5
Lafayette	20	151
Lafourche	1	26
LaSalle	0	1
Lincoln	0	15
Livingston	0	5
Madison	0	2
Morehouse	0	1
Natchitoches	2	14
Orleans	182	736
Ouachita	17	87
Plaquemines	1	2
Pointe Coupee	0	7
Rapides	24	92
Red River	0	2
Richland	0	3
Sabine	0	0
St. Bernard	0	15
St. Charles	3	16
St. Helena	0	1
St. James	1	4
St. John	0	9
St. Landry	2	18
St. Martin	0	4
St. Mary	0	7
St. Tammany	35	125
Tangipahoa	2	100
Tensas	0	0
Terrebonne	8	4
Union	0	10
Vermilion	1	11
Vernon	2	5
Washington	1	10
Webster	0	8
West Baton Rouge	0	2
West Carroll	0	0
West Feliciana	1	11
Winn	0	3
Total	506	2699

<sup>\*</sup>Licensed and residing in Louisiana. Social workers are not required to have a license to work in Louisiana through contract or in private practice, 1997 data. Sources: Louisiana Board of Medical Examiners, January 1999

Louisiana Board of Certified Social Work Examiners, 1996-1997

# H. HEALTH PROFESSIONAL SHORTAGE AREAS (HPSA)

Health Professional Shortage Areas (HPSA) designations identify areas, populations or facilities where lack of providers pose serious barriers to adequate health care. The equitable geographic distribution of health care resources has long been recognized as a problem in the United States, and particularly in the state of Louisiana. Adequate access to health services for all citizens is an important objective of current state and federal policy. Availability of an adequate supply and distribution of health professionals is essential to the ability to access basic health care services, regardless of ability to pay. The redistribution of the supply of health professionals, particularly primary care providers, through the designation of health professional shortage areas (HPSAs) is one method used to attain this goal.

HPSA designations are used to create incentives to improve the distribution and the number of primary care providers in the most critical shortage area. The HPSA designation methodology was developed to determine exactly where shortages exist, in order to define those areas eligible for participation in the incentive programs. There are approximately 40 federal programs utilizing HPSA designations, some of which are listed below.

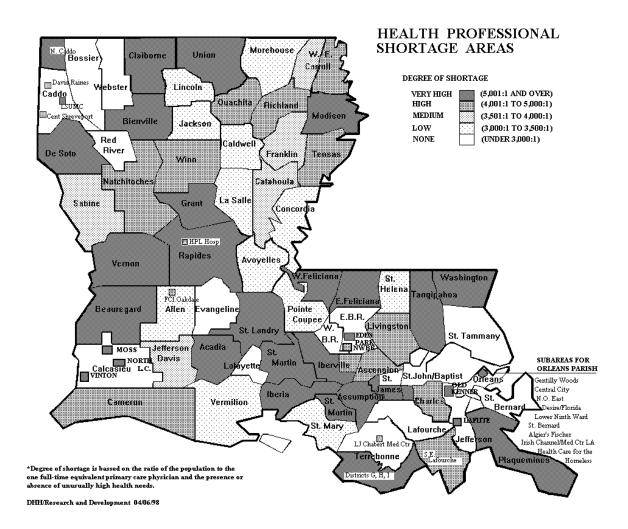
Designation requests and reviews are the responsibility of the DHH, OPH, HEALTH RESOURCE MANAGEMENT staff. After review and analysis, the designation studies and recommendations are forwarded to the Division of Shortage Designation in the Federal Bureau of Primary Health Care for determination. Designations of Medically Underserved Areas (MUA) or Medically Underserved Populations (MUP) also provide opportunities for improved distribution of health care resources and improved access. The designation process is similar to the HPSA process described previously.

The following are examples of federal programs utilizing HPSA designations:

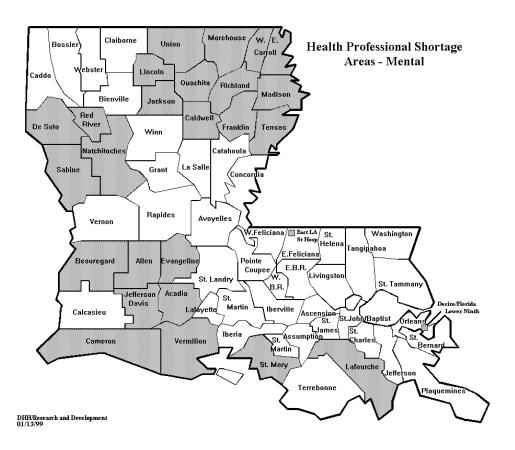
- · Department of Family Medicine
- · Grants to Predoctoral Training in Family Medicine
- Grants for Residency Training in General Internal Medicine/General Pediatrics
- · Grants for Physician Assistant Training Program
- · Grants for Preventive Medicine Training
- Nurse Practitioner and Nurse-Midwifery Programs
- Nurse Anesthetist Traineeships
- J-1 Visa Waiver Program
- Community and Migrant Health Program
- · Grants for Graduate Training in Family Medicine
- Grants for Predoctoral Training in General Internal Medicine/General Pediatrics
- Rural Health Programs
- · State Health Programs
- Allied Health Traineeships
- Allied Health Project Grants
- Professional Nurse Traineeships
- Grants for Nurse Anesthetist Faculty Fellowships
- 10% Medicare Bonus Program National Health Service Corps
- Grants for Faculty Development in Family Medicine
- Grants for Faculty Development in General Medicine/General Pediatrics



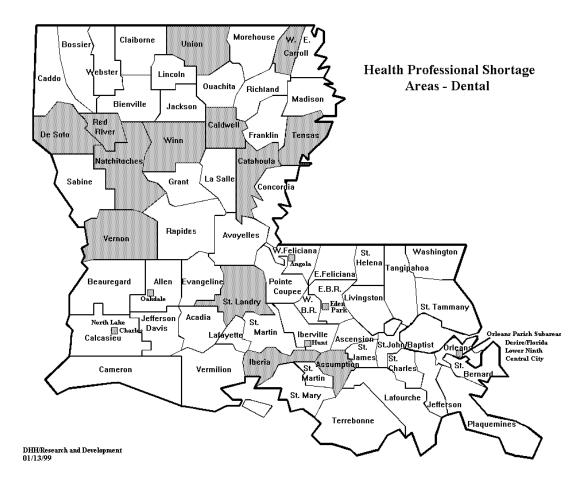
- · Grants for Physician Assistant Faculty Development
- · Podiatric Primary Care Residency Training
- Advanced Nurse Education
- · Nurse Anesthetist Education Program
- · Residency Training and Advanced Education in the General Practice of Denistry



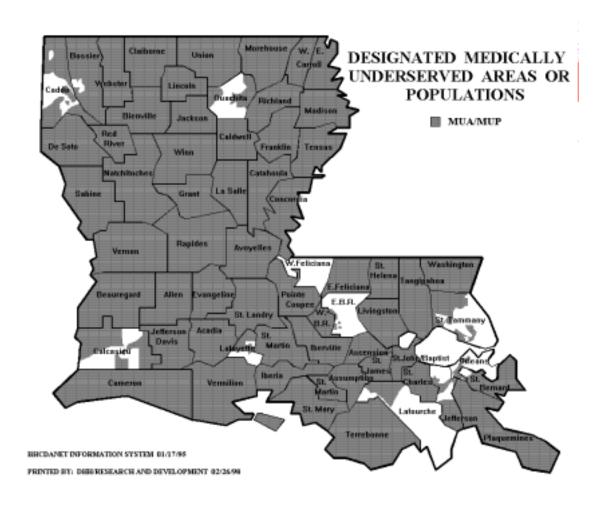














# VI. RECOMMENDATIONS FOR IMPROVING HEALTH STATUS

# A. INFANT & CHILD HEALTH

## **Infant Mortality**

- Implement the recommendations to reduce low birth weight rates (see opposite page), since this is a leading cause of infant mortality
- Establish a systematic review of all fetal and infant deaths to gather information for the development of preventive programs
- Carry out public and professional education on risk factors for Sudden Infant Death Syndrome (SIDS)
- Encourage the cessation of smoking and avoidance of second-hand smoke during and after pregnancy
- Monitor status of pregnancy risk factors with the Louisiana Pregnancy Risk Assessment Monitoring System (LaPRAMS) and employ this information in policy development and implementation of appropriate, effective interventions

#### **Child Health**

- Provide access to preventive health screening to low income infants and children or others who
  lack access to such services due to geographic or financial barriers or lack of providers
- Expand health system development to all areas of the state to insure that all children have access to comprehensive health (primary and specialty), mental health, social, and education services

## **Child Abuse and Neglect**

- Increase public awareness of child abuse prevention and positive parenting and promote parenting education in communities through the public health units
- Expand home visiting services to families at high risk for child abuse and neglect, utilizing the Healthy Families America Program and the Nurse Home Visiting Model

## **Health & Safety in Day Care Centers**

- · Provide expertise and leadership in the development and enhancement of child care standards
- Initiate the development of a coalition of state and local health professionals, government and community agencies, child care providers, and concerned citizens to address health and safety child care issues
- · Serve as an advocate for children and child care providers
- Promote appropriate health and safety measures in child care settings
- · Utilize a multi-disciplinary community approach to improve quality of these facilities
- · Encourage use of child care health consultants
- · Encourage health care providers to become child care health consultants
- · Initiate pilot projects to incorporate on-site health services in child care settings
- Encourage/assist child care centers to integrate children with special health care needs into these facilities



## **Low Birth Weight Rates**

- Ensure access to prenatal care for all pregnant women, especially those with low incomes, teenagers, and those living in medically underserved areas
- Improve access to prenatal care by promoting and removing barriers to non-traditional obstetrical practitioners in Louisiana (i.e. nurse midwives, nurse practitioners, etc.)
- Reduce substance abuse (including use of drugs, alcohol, and tobacco) among pregnant women through increased funding for public education
- · Increase counseling and treatment services for substance-abusing pregnant women
- Increase personnel needed to utilize the federally-funded nutrition programs fully, including the Women, Infants, and Children (WIC) nutrition program, for pregnant women
- Improve surveillance systems to gather information on risk factors on low birth weight pregnancies
- Increase support for <u>Partners for Healthy Babies</u>, which promotes healthy prenatal behaviors and early prenatal care through media messages and a toll free hotline that links pregnant women with health providers
- Initiate educational programs for health providers and pregnant women on identifying the signs of premature labor
- Analyze the new Louisiana Pregnancy Risk Assessment Monitoring System (LaPRAMS) database
  to assess preventable risk factors associated with low birth weight, and to help identify effective
  and ineffective elements of existing efforts

## **Teenage Birth Rates**

Facilitate the community's capacity to address teenage pregnancy through provision of information and resources. Various programs successful in reducing teenage pregnancy have accomplished some or all of the following:

- Provide educational enrichment, economic opportunities, and strengthen the family
- Involve both the public and the private sectors in developing community-centered, sustainable, collaborative, and adolescent-focused programs
- Encourage age-appropriate sex and family life education at home by parents
- Provide age-appropriate sex and family life education in schools, focusing on abstinence and the delay of sexual activity
- · Ensure access to information on safe sex practices and contraceptives
- Provide culturally appropriate, intensive, long-term programs that recognize family and community values
- Utilize a variety of approaches, including adult mentors, peers, and community members with similar backgrounds and experiences
- Utilize multi-disciplinary approaches: involve teachers, health professionals, social workers, and community leaders
- Develop multi-message programs addressing school drop-out, real life options, job exploration, training, placement, and individual and family counseling when necessary
- Provide comprehensive adolescent health clinics that are community-based, school-based, and/ or school linked
- · Ensure youth involvement in program design, implementation, and evaluation

## **B.** INFECTIOUS DISEASES

## **Emerging Infections**

- Encourage appropriate and judicious use of antibiotics
- Conduct surveillance activities to identify disease trends, drug resistance patterns, and risk factors for acquiring infections
- Develop appropriate statewide guidelines for the prevention, surveillance, diagnosis, treatment, and transfer of patients between health care facilities, for infection control, and for outbreak management
- Provide education and information to the public regarding newly emerging, re-emerging and drug resistant infections, including the importance of limiting inappropriate antibiotic use

## **Hepatitis A**

- Continue to inspect food establishments for proper sanitary procedures, including food handling, storage, preparation, and personal hygiene
- Continue to search for active cases of hepatitis A in order to identify outbreaks and provide preventive treatment
- Encourage the use of hepatitis A vaccine in specific high-risk groups, such as overseas travelers
- Provide health consultation and education to child care providers in out-of-home child care settings regarding hepatitis A, its mode of transmission, and its prevention
- Provide education and information to the public regarding hepatitis A

## **Hepatitis B**

- · Vaccinate all newborns and early adolescents to prevent hepatitis B infection
- Vaccinate high-risk groups, including household contacts of hepatitis B carriers, to prevent hepatitis B infection
- · Continue to search for active cases of hepatitis B to identify contacts at risk
- · Provide education and information to the public concerning hepatitis B

## Influenza

- Increase immunization with influenza vaccine among the high-risk groups, especially individuals over age 65 years, by increased education of health care providers and the public
- Continue active surveillance for influenza cases each year in order to inform health care providers and the public about the proper time to be immunized each fall
- Work with community groups who already reach poorly-immunized groups to increase awareness of the benefits of influenza prevention

## **Tuberculosis**

- Continue the practice of directly observed therapy (DOT) to ensure completion of therapy
- Expand surveillance for TB through liaisons with hospital infection control practitioners and private medical groups in high-incidence areas
- Enhance the capacity to provide field-based outreach and ensure thorough case and contact follow-up
- Ensure that the in-patient treatment facility at Villa Feliciana remains a treatment option for drugresistant, recalcitrant, or other TB patients who require close supervision of therapy
- Assure prompt medical assessment of those foreign-born persons entering the state with evidence of TB



## **Sexually Transmitted Diseases and HIV/AIDS**

- Encourage condom use among persons with more than one sexual partner
- Provide STD and HIV testing and counseling, group educational sessions, and outreach to persons at high risk for STDs and HIV/AIDS
- Increase access to clinical services for STDs to ensure rapid treatment and thereby reduce spread of STDs and vulnerability to HIV
- · Increase distribution of and accessibility to condoms and needles
- Enhance partner notification activities for syphilis and HIV/AIDS
- Continue support for public awareness and professional education regarding HIV/AIDS in pregnant women and the effective use of AZT in preventing perinatal transmission

## C. ORAL HEALTH

- Continue to strengthen the fluoridation program infrastructure within the Office of Public Health
- Continue to promote expansion of community water systems that adjust water fluoride level to optimal range for reduction of dental caries
- Ensure continuous proper monitoring of all public water systems that fluoridate and provide technical assistance and training for all public water systems operators
- Assess utilization of dental pit and fissure sealants among 3<sup>rd</sup> grade public school children
- Provide education to the public and dental profession regarding current pit and fissure sealant utilization rates among populations at high risk for dental caries
- · Increase access to pit and fissure dental sealants among school children in Louisiana

#### D. CHRONIC DISEASE

#### Cancer

- · Advocate cessation of tobacco use
- · Encourage avoidance of second-hand smoke exposure
- Promote increased consumption of fruits, vegetables, and grains and reduction of fat in diet
- Promote increased regular physical activity and maintenance of optimal weight
- Advocate routine Pap smears for women 18 and older
- Advocate mammograms at least every 2 years for women over 50, and for women 40-49 with a mother, sister, or child who had breast cancer
- Encourage yearly colon cancer screening tests for women and men over 50

#### Heart Disease/Stroke

- · Advocate cessation of tobacco use
- Encourage avoidance of second-hand smoke exposure
- · Promote increases in fruit, vegetable, and grain intake and reductions in fat in diet
- Promote increased regular physical activity
- Encourage maintenance of optimal weight levels
- · Advocate blood pressure checks every two years
- Advocate blood cholesterol level tests every five years (if over 35)
- Support discussion of estrogen replacement therapy with a physician for post-menopausal women

#### **Diabetes**

- · Advocate maintenance of optimal weight levels and physical activity
- · Increase intake of fruit, vegetables, and grains while reducing fat in diet
- Promote working continuously with a physician to control blood sugar levels and monitor hemoglobin A1c through regular testing
- Encourage adoption of healthy lifestyles
- Advocate maintenance of normal blood pressure and cholesterol levels
- Encourage annual retinal exams
- · Promote daily inspection of feet

# E. ALCOHOL, DRUG, AND OTHER ADDICTIONS

- Increase Community-based Prevention Programs
- Continue to reduce the sale of tobacco products through the SYNAR Program (program to reduce sales to minors)
- Expand Medical Detoxification programs
- Expand Adolescent Outpatient Services, and Halfway House Beds
- · Maintain and expand Drug Court programs
- Provide a comprehensive array of prevention and treatment services to meet the needs of problem and compulsive gamblers
- Increase the capacity to treat Dually Diagnosed clients in each region of the state.

# F. UNINTENTIONAL INJURIES

- Provide funding to expand the surveillance of non-fatal injuries through mechanisms such as Emergency Department surveillance or Emergency Medical Services data collection.
- Make smoke detectors readily available to high risk populations such as the elderly and low income households.
- Support the amendment to the primary seat belt enforcement law during the 1999 Louisiana legislative session.
- Enact mandatory bicycle helmet legislation.
- Provide support for injury prevention programs commensurate with the cost of injury hospital care, permanent disability, and potential years of life lost.

## G. VIOLENT DEATHS

#### **Violence**

- Mandate systematic reporting of weapons-related injury in the state.
- · Finance data collection and analysis of weapons-related injury.
- Educate the public regarding the need for safe firearm storage.
- Educate youth regarding non-violent ways to settle disputes.



## **Child Death**

- Assist local communities throughout the State to establish child death review panels.
- Provide training, consultation, and support to local panels.
- Conduct training conferences for investigating agencies.
- · Reimburse coroners for autopsies of children.
- Enhance prevention by a broader dissemination of the <u>Child Death Review Panel's</u> findings and the development of activities to prevent child abuse, and to promote supervision of children around roadways and water, use of car safety seats and smoke detectors, and provision of safe sleeping environments for children, including putting infants to sleep on their backs.

## H. MENTAL HEALTH

- Decrease the stigma associated with mental illness by increasing public education efforts
- Enhance consumer and family participation in the planning, delivery, and monitoring of services and settings, especially concerning suicide issues
- Focus education efforts on the depressed consumer, impulsive adolescent, student populations, elderly, homeless, and the chronically mentally or physically ill consumer
- Treat each person served by the mental health system in a holistic manner with services tailored to meet their individual needs
- Educate and train all physicians to recognize the signs and symptoms of persons with mental illness and/or at risk for suicide, so that appropriate referrals can be made and/or intervention measures can be taken



# **Contact Information**

For more information, please contact
The Louisiana Department of Health & Hospitals
or visit our site on the World Wide Web

Home page address:

## www.dhh.state.la.us

LOUISIANA DEPARTMENT OF HEALTH & HOSPITALS	(225)342-9509
Office of Alcohol and Drug Abuse	(225)342-6717
Office of Citizens with Developmental Disabilities	(225)342-0095
Office of Community Services	(225)342-2297
Office of Mental Health	(225)342-9238
Office of Public Health	(504)342-8093
Children's Special Health Services	(504)568-5330
Chronic Disease Control Program	(504)568-7210
Family Planning Program	(504)568-5330
Health Resources Management	(504)342-4764
Hearing, Speech, and Vision Program	(504)568-5028
HIV/AIDS Program	(504)568-7524
Immunization Program	(504)483-1900
Infectious Epidemiology Program	(504)568-5005
Injury Research & Prevention Section	(504)568-2509
Maternal & Child Health Program	(504)568-5073
Oral Health Program	(504)568-7706
Section of Environmental Epidemiology & Toxicology	(504)568-8537
Sexually Transmitted Diseases (STD) Program	(504)568-5275
State Center for Health Statistics	(504)568-5458
Tuberculosis Control Program	(504)568-5015
Vital Records Registry	(504)568-8353
Women's Preventive Health Program	(504)599-1091
Women, Infants, & Children (WIC) Nutrition Program	(504)568-5065



## Index

## Α

Academy of Pediatric Dentistry 125 Access to health care 140, 143 Acute Psychiatric Unit 134 Adolescents Deaths and illnesses 126 Health care 108 Adolescent School Health Initiative 126, 157 Age-adjusted death rates 34, 37-40 AIDS/HIV 56, 65, 83, 103-106, 130-131, 175 Prevention programs 130 Recommendations 175 Screening 105, 131 Surveillance 104 Alcohol 68, 83, 85-86, 132 Abuse 161 Binge drinking 85 Chronic drinking 85 Oral cancer 68 Recommendations 176 Amputations 89 Anemia screening, childhood 125 Atherosclerosis 86

#### В

Binge drinking 85 Births 7-25, 20 Crude rates 7 Low birth weight 20-22 Rates 7-9 Rates by parish 9 Teen births 23-25 Very low birth weight 22 Blindness 89 Blood cholesterol level tests 88, 90, 175 Blood pressure 87, 175 Checks 175 Body fat 86 Body Mass Index (BMI) 86, 90 Breast cancer 67, 83, 92, 127, 140 Mammograms 67 Screening 127 Breast exams 66 Bright Futures 128 Bureau of Health Care Delivery and Assistance 140 Burn injuries 108

## С

C. perfringens 104 Cancer 66-69, 83, 85, 86, 140 Breast 67, 83, 92, 127, 140 Cervical 68, 92, 127, 140 Colon 127, 175 Colorectal 63, 68 Early detection 66 Incidence 66 Kidney 68 Leukemias 68, 114 Lung 66, 68-69 Melanoma 68 Mortality 67, 68 Non-Hodgkin's Lymphoma 68 Oral cavity and pharynx 68, 85 Ovarian 69 Pancreatic 69 Preventive measures 66 Prostate 69 Recommendations 175 Renal cell 68 Renal pelvis 68 Screening 66, 127 Ureter 68 Urinary bladder 69 Uterine 69 Cancer mortality trend analysis 114 Capital Area Human Services District 129 Cardiovascular disease 83, 86-90 Census Bureau 2 Central nervous system injuries 107 Cerebrovascular disease 83, 87, 90, 175 Cervical cancer 68, 92, 127, 140 Pap smears 68 Screening 127 Cesarean sections 140 Charity Hospitals 106, 140, 150-151, 155 Chemicals 69, 110, 135, 136-137 Contamination 110, 135, 136 Exposure 69, 137 Spills 110, 137 Chicken pox 52 Child health 124-125, 128, 172, 175, 177 Abuse and neglect 125, 172 Deaths, recommendations 177 Developmental status assessment 125 Injuries 124 Louisiana Council on Child Abuse (LCCA) 128 Recommendations 172 Child care facilities 125 Child Care Health Consultant Program 125 Child Death Review Panel 107, 177 Child health, recommendations 172

Child Health Program 125 Children's Cabinet 128 Children's Special Health Services 124 Clinics 153 Chlamydia 62, 104 Cholesterol 88, 90, 175 Chronic Disease Control Program 83 Chronic diseases 83-94, 102 Recommendations 175 Chronic drinking 85 Cigarette smoking 83-84 Colon cancer 127, 175 Screening 175 Colorectal cancer 63, 68	Disease reporting, confidential 103 Division of Health Information Public Health 9 and Family Planning (PH-9/FP) Project 117 State Center for Health Statistics 117 State Health Care Data Clearinghouse 118 Division of Youth Services 108 DTP (Diptheria, Tetanus, and Pertussis) 54 Drinking and driving 86 Drowning surveillance 108 Drug abuse 161 Drugs, illegal 53, 83, 105, 161, 176 Abuse 161 Recommendations 176
Fecal occult blood tests 68	Dysplasia 92
Sigmoidoscopies 68 Communities that Care Survey 132	E
Community Care 150, 155	E coli 102
Community Health Centers 155 Community mental health centers 160 Community Services Regional Offices 129 Comprehensive Environmental Responsibility, Compensation, and Liability Act (CERCLA) 111 Comprehensive Oral Health Needs Assessment 109 Condoms 131 Confidential disease reporting 103 Coteau childhood leukemia 114 Crisis intervention program 133 Crude birth rates 7 Crude death rates 33-37 D	E. coli 103 Eastern Equine Encephalitis (EEE) 103 Emerging infections, recommendations 174 Environmental epidemiology and toxicology 110– 115 Cancer mortality trend analysis 114 Disease cluster response 114 Health consultations 111 Industrial mapping 115 Mercury blood screening 115 Pesticide exposures 113 Public Health Assessments 111 Environmental health advisories 110 Environmental health education 110, 137 Estrogen replacement therapy 175
David Olds Nurse Home Visitation Model 128 Day care centers Recommendations 172	Evolutions 134 Exercise 86–87
Deaths 33-50	F
Age-adjusted rates 34, 37-40 Crude rates 33-37 Injury 50, 107 Leading causes 37–40 Dental care professionals 125 Dental sealants 109, 175 Department of Agriculture and Forestry 113 Department of Social Services, Bureau of Licensing 125 Developmental centers 150, 159	Family Planning Clinic 153 Family Planning Program 126 Fecal occult blood tests 66, 68 Federally Qualified Health Centers (FQHCs) 150, 155 Fiber 66, 87 Cancer prevention 66 Fires 83 Fish consumption advisories 135-136 Fluoridation Program 135, 175
Developmental disabilities 159	Fluoridation Program 135, 175
Diabetes 83, 86, 89–91, 127, 140, 176	Fruit 87, 90
Recommendations 176	G
Screening 127	Gastroenteritis 103, 104
Diet 83, 86, 91, 175, 176	German measles 52, 103
Digital rectal exam 69	Gonorrhea 61-62, 104
Diphtheria 52, 54 Directly Observed Therapy (DOT) 56, 130, 174	Growth monitoring 125
Disease cluster response 114	



П	Coverage rates 98
Haemophilus influenzae B 52	Diphtheria 52
Health behaviors 83, 91	DPT 54
Health care access 140, 143	Haemophilus influenzae B (meningitis) 52
Health Consultations 111	Hepatitis A 52
Health indicators 140	Heptatitis B 52
Health Maintenance Organizations (HMOs)	Measles 52
93, 150, 161	MMR 54
Health Professional Education 137	Mumps 52, 54
Health Professional Shortage Areas (HPSAs)	Pertussis (whooping cough) 52
154, 166	Polio 52
Health professional shortages 141	Rubella (German measles) 52
Health promotion 83	Tetanus 52
Health Resource Management 166	Varicella (chicken pox) 52
Healthy Families America Program 172	Industrial mapping 115
Healthy Families Program 128	Infant and child health, recommendations 172
Healthy People 2000 61, 62, 83, 117	Infant deaths 117, 172
Hearing impairments 123	Recommendations 172
Hearing, Speech, and Vision Program 123	Infant mortality 43, 128, 140, 172
Sound Start Program 123	Neonatal 43
Heart disease 83, 86-90, 175	Rates 41
Recommendations 175	Recommendations 172
HELPLINE 128	Infectious diseases 52–54, 102, 174
Hepatitis A 52, 53, 174	Recommendations 174
Recommendations 174	Surveillance 102
Hepatitis B 52, 53, 174	Infectious Epidemiology Program 102, 104
Recommendations 174	Disease surveillance 102
Vaccine 53	Influenza, recommendations 174
High blood pressure 83, 86-87, 90, 127	Injuries 50, 102, 107-108, 124, 176
Screening 127	Brain and spinal cord 107 Burn 108
High cholesterol 88, 90, 175	
HIV/AIDS 56, 65, 83, 103-106, 130-131, 175	Childhood 124
Prevention programs 130	Deaths 50, 107 Unintentional 124, 176
Recommendations 175	Injury Research and Prevention Section 107-
Screening 105, 131	108, 124, 133
Surveillance 104	Brain and spinal cord injury registry 103, 107
HIV/AIDS Hotline 131	Burn injuries 108
HIV/AIDS Program 102, 104, 105, 130, 131	Child Death Review Panel 107
Disease surveillance 102	Drowning surveillance 108
Prevention programs 130	Injury specific deaths database 107
Screening 105	SAFE KIDS Coalition 124
Home Visitation Program 128	Violence Prevention Program 133
Homicide 83	Insulin 89
Hypertension 83, 86-87, 90, 127	Insurance 93, 125
Screening 127	Intravenous drug users (IVDUs) 106, 131
Hypothyroidism screening, congenital 125	Intravenous drugs 53, 105
I	Isoniazid (INH) 56, 57
Immunization Program 98, 102, 122	J
Coverage rates 98 Disease surveillance 102	Jefferson Parish Human Services Authority 129
Shots for Tots 122	К
Immunizations 98, 52-54, 122, 125	
Childhood 52	Kidney cancer 68



Kidney failure 87	MMR (measles, mumps, rubella) 54
L	Motor vehicle accidents 83, 85-86 Injuries 83
LA Teen Pregnancy Prevention Directory 109 Language impairments 123	MR/DD Service System 129 Mumps 52, 54
LaPRAMS 126–127, 172-173	N
Leukemias 68, 114	N. C. T. L. M. T. N. C.C. O. WHIANGO HIN
Coteau 114	National Health and Nutrition Survey (NHANES III)
Liver diseases 85 Louisiana Adolescent Health Data Book 109	89 Noissaria gaparrhagas 61.62
Louisiana Adolescent Health Initiative 108	Neisseria gonorrhoeae 61-62 Neonatal mortality 43
Louisiana Council on Child Abuse (LCCA) 128	Newborn Hearing Screening Program 124
Louisiana Department of Environmental Quality	Non-Hodgkin's Lymphoma 68
(LDEQ) 136	Norwalk virus 103
Louisiana Managed Health Care Association 161	Notifiable diseases 102–103
Louisiana Pregnancy Risk Assessment Monitoring	Nurse Home Visiting Model 172
System (LaPRAMS) 126–127, 172-173	Nutrition 86–87, 91
Louisiana Vital Statistics Report 117	
Low birth weight 117, 128, 140, 172-173	0
Recommendations 172-173	Obesity 89-91, 127
Lower Mississippi River corridor 114	Screening 127
Lung cancer 66, 68-69	Office for Citizens with Developmental Disabilities
М	(OCDD) 129
	MR/DD Service System 129
Madisonville Creosote Works 111	Office of Alcohol and Drug Abuse (OADA)
Mammography 66, 92, 175	105, 108, 131, 132, 134, 161
Managed care organizations 91	Intravenous drug use treatment 105
Mandatory disease reporting 103	Prevention services 132
Maternal and Child Health Program 125-126, 128-129	STD, TB, and HIV/AIDS screening 105, 131
Bright Futures 128	Office of Mental Health (OMH) 108, 133-135, 160 Acute Psychiatric Unit 134
Child Health Program 125	Children's Assertive Community Treatment 133
Healthy Families Program 128	Evolutions 134
Parenting Education Cards 129	Programs 133–135
Measles 52, 103	Project Life 134
Medicaid 91, 144-148, 155	School-Based Mental Health Services 134
Medical care coverage 93	St. Charles Assertive Treatment Program 134
Medical Center of Louisiana New Orleans	Suicide assessment 133
Partial Hospitalization Program 135	Oral cancer 68, 85
Rapid Response Team 135	Oral Health Program 109, 125, 135, 175
Medically Underserved Areas (MUAs) 154, 166	Assessment 109
Medically Underserved Population (MUPs) 166	Prevent Abuse and Neglect through Dental Aware-
Medicare 93, 149	ness 125
Melanoma 68	Recommendations 175
Meningitis 52, 103	Outpatient primary care facilities 141 Ovarian cancer 69
Mental health 150, 160, 177 Clinics 150, 160	Overweight 86, 89-91, 127
Rehabilitation hospitals 150	Oysters 103
Recommendations 177	Cysters 100
Mental retardation 159	P
Mercury 110, 115, 136	Pancreatic cancer 69
Blood screening 110, 115	Pap smears 66, 68, 175
Contamination 136	Parental counseling 125
Fish 110	Parenting Education Cards 129
Methyl parathion 113, 137	. a.c.img Education Outdo 120



Parish health units 153, 155	Second-hand smoke 172, 175
Partial Hospitalization Program 135	Secondary prevention 83, 91
Partners for Healthy Babies 173	Section of Environmental Epidemiology and Toxicol-
Pertussis 52-54	ogy (SEET) 110-111, 113-115, 135-137
Pesticides 110, 113, 137	Cancer mortality trend analysis 114
Pharynx cancer 68	Community Water Fluoridation 135
Physical activity 86-87, 91, 175-176	Disease cluster response 114
PKU screening 125	Environmental Health Advisories 135
Polio 52	Environmental health education 137
Population 2–5	Industrial mapping 115
Age/gender/race-specific 2, 4	Mercury blood screening 115
Parish-level 5	Mercury in fish 136
Poverty 140	Pesticide exposure response 113
Prenatal care 16–18, 117, 140, 173	Public Health Assessments and Consultations 111
Kessner index 18	Sedentary lifestyle 83, 87, 89
Prevent Abuse and Neglect through Dental Awareness 125	Sexually transmitted diseases (STDs) 60-62, 102- 105, 130-131, 175
Preventive health outreach programs 122	Chlamydia 62
Preventive health services 125, 127	Clinics 153
Primary care practitioners 140	Gonorrhea 61-62, 104
Primary prevention 83, 91	Prevention programs 130–131
Proctosigmoidoscopy 66	Recommendations 175
Project Life 134	Screening 105, 131
Prostate cancer 69	Surveillance 104
Prostate-specific antigen (PSA) 69	Syphilis 60-61, 103
Protease inhibitors 65	Sexually Transmitted Diseases (STDs) Program 102,
Provider sites 150–161	104-105, 130
Psychiatric disabilities 135	Disease surveillance 102, 104
Psychiatric institutionalization 133	Prevention programs 130
Public Health 9 and Family Planning Project (PH-9/	Screening 105
FP) Project 117	Shigella 103
Public Health Assessments 110, 111	Shots for Tots Program 122
Public health clinics 150, 153	Sickle cell disease screening, childhood 125
Public health expenditures 140	Sigmoidoscopies 68
R	Single Point of Entry system 133
	Sister to Sister Summit 109
Rapid Response Team 135	Skin cancers 68 Smokeless tobacco 69, 85
Renal cell cancer 68	Smoking 66, 68-69, 83–85, 90, 132, 172, 175-176
Renal disease 89	Kidney cancer 68
Renal pelvis cancer 68	Lung Cancer 66
Respiratory diseases 83	Recommendations 172
Rubella 52, 103	Snuff 69
Rural and community hospitals 150, 151	Sound Start Program 123, 124
Rural Health Care Initiative 151	Speech impairments 123
Rural health clinics 154, 150, 155	Spinal cord injuries (SCI) 103, 107
Rural population 155	St. Charles Assertive Treatment Program 134
S	State Center for Health Statistics 117
	State Health Care Data Clearinghouse 118
SAFE KIDS Coalition 124	State Loan Repayment Program (SLRP) 141
Salmonella newport 104	Stroke 83, 87, 90, 175
Sanitary Code 102	Recommendations 175
School-Based Health Care Program 126 School-Based Health Centers (SBHCs) 126, 134,	Substance abuse 53, 68, 83, 85-86, 105, 132, 161, 173, 176
150, 157	Substance Abuse Prevention Clinics 150, 161

Sudden Infant Death Syndrome (SIDS) 123, 172 Recommendations 172 Suicide 83, 133 Assessment 133 Syphilis 60-61, 103, 104 Early 60
T
Teen births 23-25, 117 Recommendations 173 Tetanus 52, 54 Tobacco 66, 68-69, 83–85, 90, 132, 172, 175, 176 Kidney cancer 68 Lung cancer 66 Smokeless 69, 85 Toxic Site Assessments 110 Traumatic brain injury 94, 107 Treponema pallidum 60 Tuberculosis 56–57, 103, 105, 130-131, 174 Directly Observed Therapy (DOT) 56 Drug-resistant 57 Multi-drug-resistant (MDR-TB) 57 Prevention and control 56, 130 Recommendations 174 Screening 105, 131 Surveillance 105 Tuberculosis (TB) Control Program 102, 105, 130 Disease surveillance 102, 105 Prevention and outreach 130 Screening 105 Tuberculosis Clinic 153
U
Unintentional injuries 124, 176 Recommendations 176 Ureter cancer 68 Urinary bladder cancer 69 Urinary tract screening, childhood 125 Uterine cancer 69
v
Vaccination 52-54, 122  MMR (Measles, Mumps, Rubella) 54  Mumps 54  Pertussis 54  Vaccines 52-54  Diphtheria 52  DTP (Diphtheria, Tetanus, Pertussis) 54  Haemophilus influenza B (meningitis) 52  Hepatitis A 52  Hepatitis B 53  Heptatitis B 52  Measles 52  Mumps 52

Pertussis (whooping cough) 52
Polio 52
Rubella (German measles) 52
Tetanus 52
Varicella (chicken pox) 52
Varicella 52
Vegetables 87, 90
Violence Prevention Program 133
Violent deaths, recommendations 176
Vision impairments 123
Vital Records Registry 117
Vital statistics 117

#### W

Water fluoridation 135, 175
Whooping cough 52-54
Women, Infants, and Children (WIC) nutrition
program 109, 129, 173
Women's Preventive Health Program (WPHP) 127–
128

## Υ

Youth 84, 132-133, 176
Cigarette smoking 84
Mental health 133
Psychiatric institutionalization 133
Smoking prevention 132
Violent deaths 176